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Preface

Dear Friends, Dear Colleagues,

It is our great pleasure to welcome all of you in 13th QQML International Conference, our 2nd Virtual Conference.

Dear Colleagues,

The changes that covid-19 caused in our way of life, management of the work, relations, psychology, philosophical attitude et al are unexpectedly deep and possibly permanent. Pandemic make us quite sensitive, skepticists to travel but trained us equally fighters against the difficulties that emerged and flexible enough for effectiveness and innovative for efficiency.

We are in front of the new challenges that conditions cause, a new historical period. One year experience added good practices, new work concept, new human resources management, wisdom.

Important speakers present online their research and their work in the Plenary Speech, the Workshops, the Special Sessions and the Posters which support the professional development of library scientists and information specialists and link research output to theory, practice & policy. The conference also brings together online members of the QQML network that started some years before.

Delegates from 37 countries participate here: Australia, Bangladesh, Brazil, Canada, Croatia, Czech Republic, Denmark, Egypt, Finland, Germany, Greece, Hungary, Ireland, Iran, Italy, Latvia, Malaysia, Mexico, Nigeria, Oman, Pakistan, Philippines, Poland, Portugal, Romania, Russian Federation, Saudi Arabia, Serbia, Singapore, South Africa, Spain, Sri Lanka, Trinidad and Tobago, UK, USA.

I'd like to thank the Committees of the Conference which worked hard for its success.

Enjoy it!

Anthi Katsirikou

University of Piraeus Library

Conference Chair

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Plenary Speech

The strengths of libraries in crisis like the Corona Pandemic

1

Barbara Lison

IFLA President elect

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Biography

Since almost 30 years Barbara has been working as Director of the Public Library system of Bremen, one of the largest public library systems in Germany.

She is an educated librarian with university degrees in Slavonic studies, History and Educational theory.

Besides her duties in Bremen library Barbara has been actively advocating for libraries on national and international levels. She had several offices in different library related associations, having served as President of the German Library Association, dbv, and President of Bibliothek Information Deutschland, BID, the national umbrella organisation of German library and information associations.

She has been a member of IFLA's Governing Board, held the position of Treasurer and is now IFLA President-elect. Her presidency will be from August 2021 to August 2023. She has also held leadership positions in the European Bureau for Libraries, Archives and Documentation Associations (EBLIDA), including Executive Committee member and Vice-President.

She is an expert on any aspect of the management of libraries, especially innovation, HRM, customer orientation and change management.

Special Sessions

Session title

Evaluation of User Experience in cultural heritage organizations

Organizing Committee: Markku Antero Laitinen (Chair)¹, Jouni Henrik Juntumaa² and Svetlana Kirichenko³

¹National Library of Finland

²City of Helsinki, Culture and Leisure

³University of Helsinki

Abstract of the Special Session: There are several methods for evaluating the user experience (UX) in cultural heritage organizations. The wholeness of the users' experience of a service supplied by libraries, archives or museums consists of several attributes. It is important for the cultural heritage organizations to recognize the significant elements of the UX and it is also inevitable to critically evaluate the relevance of the evidence collected to reveal possible elements still out of sight. The target of this Special Session is to gather together the experts interested in evaluation of UX in cultural heritage organizations to discuss about (i) the good practices of finding the evidence of UX (ii) the ways to form an overall view of UX (iii) new ideas and pilot projects.

Target groups and the audience are professionals of cultural heritage organizations in a more general sense: professors, researchers, students, administrators, museum scientists, archivists, directors and decision makers, information scientists, librarians, statisticians, marketing managers and other potential stakeholders.

Papers:

1. Towards the Multidimensional Measurement of Library Performance. User Experience Index/ by **Markku Antero Laitinen, Jouni Henrik Juntumaa and Svetlana Kirichenko.**
2. Users Experiences of Kurdish Cultural Institute Websites: A Multidisciplinary Evaluation/ by **S. Mahdi Hosseini and Shenah Abdullah.**
3. Evaluating user experience in a digital community archive/ by **Krystyna K. Matusiak.**
4. Evaluating User Experience of the Portuguese District Archives websites/ by **Ana Margarida Dias da Silva and Leonor Calvão Borges.**

Workshop

Workshop Title

INNO3D 3PRINTING

3

Target group are professionals and of libraries, archives and museums as well as students and researchers of library science, such as administrators, directors and decision makers, technicians, information scientists, statisticians, marketing managers and other potential stakeholders.

Papers:

1. Welcoming/ by QQML 2021 Organizing Committee
2. Welcome from **Jerald Cavanagh**, Institute Librarian and INNO3D Project Leader, Limerick Institute of Technology
3. An introduction to the 3D Printing Support Service for Innovative Citizens (INNO3D) project/ by **Jerald Cavanagh¹ and Padraig Kirby²**.
¹Institute Librarian, INNO3D Project Leader, Limerick Institute of Technology; ²Research Development and Innovation Project Officer, INNO3D Project Coordinator, Limerick Institute of Technology.
4. The impact of 3D printing advanced technology in the academic area/ by **Angela Repanovici**, UTBV Team, Transilvania University of Brasov, Romania.
5. 3D Printing Technologies/ by **Fillipe Silvestre**, Biblioteca, FCT NOVA School of Science and Technology, FCT NOVA, Portugal.
6. Teaching and Learning 3D Printing in the University/ by **Anca Draghici₁ Carmen Sticlaru¹ Agneta Lovasz²**,
¹Politehnica University of Timisoara, Romania
²The Central Library of Politehnica University of Timisoara, Romania
7. How to create 3D printed models from academic data/ **Richard Smith**, Radcliffe Science Library (One of the Bodleian Libraries of the University of Oxford).
8. Makerspace or Managed Service? Twin operating models for 3D printing in Libraries/ **Mike Boyd¹ and Anthony Middleton²**, [University of Edinburgh](#)
¹Makerspace Manager, uCreate Studio at the University of Edinburgh
²Makerspace Coordinator, uCreate Studio at the University of Edinburgh
9. Time efficiency of online education in technical subjects without of decreasing didactic effectiveness during the COVID-19 pandemic? /by **Štefan Koprda**, UKF Team
10. 3D Printing for more accessible universities/ **Adamantia Psallidakou and Ageliki Oikonomou**, Greece, University of Piraeus Library.
11. Numbers@fctfablab/ **Ana Roxo and Filipe Silvestre**, FCT NOVA School of Science and Technology, FCT NOVA, Portugal.
12. Conclusions/ by **the Coordinator of the Project.**

Papers

3D Printing for More Accessible Universities

4

Adamantia Psallidakou and Ageliki Oikonomou

University of Piraeus Library, Greece

Abstract. Students with blindness or visually impairment face learning barriers in the typical higher education systems where a great deal of information is conveyed visually. Academic staff and libraries instructors can use a variety of strategies to accommodate such students and make visually presented information more accessible. One common and inexpensive strategy is the use of tactile graphics which are graphics created with raised lines or bumps printed on special paper. The recent technology of 3D printing can benefit visually impaired students and staff and improve their way of life. The use of 3D printable designs shared as open educational resources can increase accessibility in universities campuses.

The University of Piraeus Library supports services for People with Disabilities (PWD) over the past few years and it also provides selected list of resources to its print disabled users. The purpose of this presentation is to share our experiences in dealing with PWD users and how we are going to take advantage of the innovative 3D printing technology in order to better service our users.

Keywords: academic libraries, People With Disabilities, 3D printing, visually impairment users

Academic Libraries in Support of Teaching During the COVID-19: the Example of the Belgrade University

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Abstract. The outbreak of the COVID-19 epidemic has affected many segments of life and work, and many activities have been moved to the virtual world. The transition to online teaching has inevitably led to changes in the work of academic libraries. The aim of this paper is to provide an outline of the way in which academic libraries helped conduct teaching at the university level during the first wave of the COVID-19 virus epidemic, in the period from mid-March (when a state of emergency was declared in Serbia) to mid-July 2020 (exam deadlines at most faculties).

The research was conducted through online questionnaires in libraries that are part of the academic libraries network in Belgrade University in Serbia: the central university library, faculty libraries and the library of the Students' City Cultural Center. The questions can be divided into three groups: which internet tools librarians used in communication with users, how they provided library services and to what extent they met the users' expectations.

The results of the research will show that librarianship is a flexible profession that adapts to new challenges, and the pandemic has confirmed that libraries are an indispensable carrier of cultural development and distance learning. On the other hand, the study will show what are the weaknesses in the work, what needs to be improved and what was good. In this way, the work can be a signpost on how academic libraries can further develop their services in order to more effectively support the teaching process.

Keywords: academic libraries, teaching, LIS professionals, pandemic, COVID-19, library services, Belgrade University

Adoption and use of big data in polytechnic libraries in Nigeria

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Abstract. The study examined the adoption and use of big data in polytechnic librarians in Nigeria. The study is a survey research anchors on positivism paradigm. The population of the study comprises ten purposively selected polytechnic libraries in Nigeria in which ten academic libraries were randomly selected. The study used Unified Theory and Acceptance of Technology (UTAUT) as under pin theory for the research. The findings of the study revealed that effort expectancy, performance expectancy and facilitating conditions are the UTAUT constructs that influenced behavioural intention of academic libraries to use big data. In addition, the study revealed that the academic librarians are aware of the relevant benefits of big data particularly in promoting effective library services to the users. The challenges facing the adoption of big data in the polytechnic libraries in Nigeria are in adequate funding, incessant power supply and poor internet connectivity. The study recommended that library managements should make funds available for necessary resources and facilities that will promote the use of bid data. Furthermore, the study recommends that libraries need to subscribe to reliable internet service providers and there is need for alternative sources of power. This study contributes to knowledge in the following ways which includes join in the validation of UTAUT and the results of the study will be relevant to policy makers in libraries.

Keywords, adoption, use, big data, polytechnic libraries, Nigeria

Advancement in Technology and New Approaches of Teaching Information Literacy at the Universities in a Developing Country Context: Challenges and the Way Forward

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Abstract.

Background/Purpose: It is no longer news that the changes brought by information communication technologies (ICTs) is impacting all human activities including education, social, politics, governance, commerce, economic, among others. The way in which instructional delivery is conducted have grossly been influenced, particularly the teaching of information literacy (IL) to the new entrants into the universities. What need to be taught and the methods and techniques have all been greatly influenced. Undergraduates need to be taught new technology advancement in the information arena which are reshaping our ecosystem such as 5G, Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning, Virtual and Augmented Reality, Cloud Computing, Blockchain, Cybersecurity, and robotic technology, and how each of them relates to or influence information literacy. Similarly, rather than teaching IL in a traditional face to face method, there come new methods such as e-learning, mobile learning, machine learning or artificial intelligence AI to teach IL at the university. Some of them are still very new in the developing countries such as Nigeria. There is the big question of whether new technology can be the answer to our future information needs or whether it will be the solution? The main challenge is for the new entrants to recognise their information needs, interpret digital information and predict changes with the help of technology. No doubt, the new changes will pose some challenges considering the peculiar

issues confronting most of the developing countries including power outage, cost of making the new technologies available, knowledge expertise, etc. Notably, teaching those new development as information literacy to the new entrants into the university is highly essential since, the smart city, smart economy these undergraduates will be part and contenders are almost here. In light of this, this paper will examine what constitute the new approaches and techniques of teaching information literacy to the new entrants into the university, what new contents should be added in view of the technological advancement, what new methods of teaching IL should be introduced and what are the advantages of those over the old methods; what challenges may be encountered in the process of adopting new techniques and methods and the way forward.

Methodology: To achieve these purposes, the paper will embark on documents analysis and the review of literature. Documents that will be reviewed will include the existing curriculum of information literacy courses in Nigerian universities; from which the old contents and methods will be identified while the new ones will be suggested through the review of current literature on latest advancement in technology that is currently influencing the teaching methods in the universities.

Findings: It is expected that the outcomes from the study will reveal the old methods of teaching information literacy in the Nigerian universities, the old contents and the new ones to be added, along with the challenges associated with using new methods introduced due the advancement in technology or the emergence of the fourth industrial era.

Conclusion: The study will conclude based on the expected findings of the study.

Recommendations: Appropriate recommendations based on the findings of the study will be highlighted.

Originality and value: The study is one of the pioneer researches that address the Nigerian libraries' readiness to integrate AI for library services and operation from the perspective of librarians. Such study is currently lacking in the Nigerian LIS research context.

Keywords: Information literacy, Advancement in technologies, New methods/techniques, Artificial intelligence, Machine learning, New entrants, University undergraduate, Developing countries, Nigeria.

Analysis of publications on COVID-19 in the Russian scientific journals

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Abstract. COVID-19 is a unique international phenomenon of 2020. It has affected almost all countries of the world resulting in severe consequences for both public health and economy. Awareness of the importance to control COVID-19 initiated research and recommendations.

Purpose: to analyze scientific articles on COVID-19 published in the Russian scientific journals by thematic areas and topics.

Methods: statistical, bibliometric and content analysis.

Objectives: To identify amount of research on COVID-19 published in the Russian scientific journals, as well as to specify major thematic areas and topics (medicine, economics, sociology, etc.), since this new pandemic has impacted all aspects of life.

Results: Analysis of the pandemic-related articles published in Russian scientific journals was based on information available for eLIBRARY.RU, a Russian information portal. eLibrary.RU is the biggest Russian information and analytical portal in science, technology, medicine and education. It contains abstracts and full texts of more than 22 million scientific articles and publications including electronic copies of more than 4 800 Russian scientific journals. The list of journals is expended on the annual basis enabling researches and health care specialists to find quality scientific information in electronic format. As of mid-December, 2020, there were

3147 articles on COVID-19 available from eLibrary.ru. Distribution of the articles by thematic areas is as follows: Medicine – 1555 articles, Economics (economic sciences) – 412 articles, Biology-385, Law - 120, Politics-79, Chemistry-58, Education-51, Psychology-46, Sociology-30, Human Ecology-27. Other thematic areas were covered by insignificant number of articles. Analysis of the thematic areas of research shows that the COVID-19 pandemic has affected almost all aspects of the social life and encouraged studies to develop evidence-based solutions in various sectors. A more detailed analysis of topics made it possible to identify most relevant issues related to the fight against COVID-19.

Application of active learning methodologies in Library and Information Science education: a bibliometric and systemic analysis using the Proknow-C process

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Abstract. Background: For teachers to transmit contents and students to memorize this material, a critical and reflective process must take place in this dynamic. This process leads the student to the construction of knowledge and the development of important skills for the use of different resources and informational environments. Thus, the student's autonomy and protagonism concerning the construction of knowledge are directly stimulated. Active learning methodologies are those in which the student is the central protagonist, while the teachers are mediators or facilitators of the process. They are guidelines that conducts the teaching and learning process based on concrete, specific, and differentiated strategies, approaches, and techniques. It is necessary to know, understand and select them, according to the teaching universe where they are inserted. Among the most referenced methodologies in the literature are Activity-Based Learning, Research-Based Learning, Problem-Based Learning; Project-Based Learning; Design Thinking; Peer-Instruction; Problematization; Flipped Classroom; Storytelling; and Student-Teams-Achievement Divisions; and Teams-Games-Tournament. Objective: To analyze three active learning methodologies: Problem-Based Learning; Project-Based Learning; Design Thinking. Research Design: This is exploratory research, with a qualitative approach, in which a systematic review was developed based on the Proknow-C method. The ProKnow-C method was developed in the scope of the Laboratory of Multicriteria Methodologies in Decision Support, of the Graduate Program in Production Engineering of the Federal University of Santa Catarina (Brazil). It is a knowledge construction methodology based on the selection of a bibliographic portfolio. This portfolio is the source for a systematic literature review and bibliometric analysis. The literature search was conducted in the databases: Information Science & Technology Abstracts, LISA: Library and Information Science Abstracts, Scopus, and Web of Science, using the terms "Information Science" or "Library Science" associated with "Active methodology" and "Learning". Results: From the bibliographic portfolio it was possible to analyze the use of the three methodologies toward library and information Science education, as well as their specific features; and b) perform the bibliometric analysis, in which the following topics were contemplated: journal relevance; citation index of the articles; the incidence of articles per author; and identification of keywords adopted. Conclusion: Possibilities of application of the methodologies were identified with evident benefits such as collaborative work; receiving feedbacks; autonomous and protagonist formation of the student, especially by the way they stimulate interaction and engagement. The Proknow-C proved to be efficient for the systematic literature review. The active methodologies evaluated in this study contribute to Library and Information Science education, especially regarding the formation of the student as a critical and reflective citizen.

Keywords: Information Science education; Active learning methodology; Proknow-C methodology

Are libraries ready for digital transformation of education?

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Abstract. The impact of the pandemic on higher education has left its mark on all actors in the educational process. In the case of Croatia effects of a strong earthquakes posed additional challenges on educational process. The transition to a full e-learning environment created less problems for the ones that were already using blended learning in their line of teaching but was more challenging to the ones that were accustomed to traditional face-to-face learning. On the other hand, this new environment which could be called crisis e-learning pointed to series of other problems and unpreparedness of other facilities supporting and enhancing the educational process. The migration of teaching to the virtual world also meant a virtual way of working, which required access to quality equipment and digital resources.

Purpose: This paper explores how the Covid-19 pandemic has affected the higher education sector and its libraries. We will show what problems and challenges did we experience during pandemic and natural disaster period to prevent a similar future crisis situation.

Methodology: The research was conducted on three study groups in the field of social sciences and humanities including teachers, students and librarians. The research was conducted using qualitative and quantitative methods and in particular an in-depth interview with librarians.

Outcomes

Teachers and librarians primarily report the lack of continuing professional education and development in the field of e-learning. Students have experienced problems that arouse from lack of face-to-face meeting with their teachers and peers, the problem of access to reading materials and literature, the costs of e-learning and their financial sustainability. The survey questionnaire checked the digital competencies of employed librarians and through an in-depth interview highlighted the problems they were experiencing. pointed out by librarians and finally compared everything with the study program itself in order to initiate faster changes in study programs. Finally, the research results offer different scenarios and recommendations regarding faster changes in study programs and necessary changes in the University.

Keywords: e-learning, university library, COVID-19

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Assessing Information Literacy Skills of Mathematics Faculty Members in Pakistan

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Introduction

The process of identifying, locating, evaluating and utilizing information effectively, efficiently and ethically is called information literacy that is direly needed in this information era. Information literacy (IL) skills comprise the set of competencies, which are useful for research, lifelong learning and to become the critical consumer of information in 21st century. With the appearance of more and more scholarly communication in multiple formats, IL skills have become the fundamental and integral need of higher education sector. It is increasingly important to incorporate IL skills among faculty members for enhancing their academic performance and research productivity. The present study aimed to assess IL skills of Mathematics faculty members in higher education institutes of Pakistan. The study explored their ability to identify the information need and sources; to plan strategies for locating, accessing, evaluating and ethically applying the needed information effectively and efficiently. The study is helpful in determining IL related deficiencies among mathematicians faculty and provide the guidelines to the information professional for developing the IL programs.

Research Design & Methodology

The study used quantitative research approach and structured questionnaire based on SCONUL Seven Pillars of Information Literacy, was developed. The population of the study comprised all faculty members from mathematics departments of HEC recognized public sector universities of the Punjab. There were total 36 public sector universities in the Punjab; only twenty universities were offering academic programs in mathematics. Total 300 faculty members were listed after visiting the websites of these universities. Questionnaires were sent to all the faculty members through personal visits, email and postal service. After repeated follow up calls, 185 filled questionnaires were received. The study used SPSS-22 for data analysis purpose.

Findings

The major findings of the study showed that the mathematics faculty members of public sector universities of the Punjab had reasonable IL skills of basic level. They were able to identify information need and related information sources. They were able to scope, plan, gather, evaluate, manage and present information legally and ethically. However, findings revealed that faculty members were not competent at the advanced level of IL skills. Keeping this in view, the study suggested that information professionals/librarians working in university libraries should design need-based IL programs to cater the needs of faculty members. They should offer advanced level of IL instruction as mathematics faculty members indicated high self-efficacy in basic level.

Keywords: IL skills, Faculty members, mathematicians, Pakistan, Universities

Benchmarking the Corona crisis management in two European academic libraries

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Abstract. The Corona virus changed the way academic libraries carried out their functions from the March 2020. The European situation escalated especially in the Mediterranean area while in the spring 2020 the northern part seemed to manage the situation in a more structured manner.

The second wave during the fall and winter 2020 was met with the knowledge created during the first wave. We will be benchmarking both the Corona situation and actions at the national level in Finland and Spain as well as between the Universitat Autònoma de Barcelona Library (Spain) and the University of Eastern Finland Library (Finland). The aim of our paper and presentation will be: 1. to give an overview of the Corona situation and policy measures at the national level in both countries and 2. to find out the best practices in both academic libraries. The results also reveal the best practices of crisis management in these institutions; recommendations are given to the further development for the crisis management of the academic libraries in a rapidly changing operational environment.

Keywords: academic libraries, crisis management, benchmarking, Corona virus, best practices

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Building a Library strategies under the new public management paradigm or how to use Lego bricks for organizational development in Research Libraries

Charlotte Wien

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Abstract. There was a time when the purpose of libraries could be summed up as "being staffed by librarians and populated by books and users". Back then, it was easy to know what goal was being worked towards: there should be books on the shelves, librarians at the counters and a sufficiently well-functioning infrastructure to ensure that users were satisfied when they left the library.

About 20 years ago, however, its reformulation began. The neoliberal currents that poured over the global North led to a thinking that the public sector was inefficient but could be made more efficient with the same tools that are typically used in the private sector. Termed 'New Public Management', the phenomenon washed like a tsunami across academia in the early and mid-2000s.

Until then, concepts such as 'strategy', 'marketing', 'competition' and 'key indicator' were foreign words in the academic sector, but suddenly universities, like private companies, had to ensure that each university's production targets were met. Soon this also reached the heart of universities: Their libraries.

Today, there is hardly a major research library in Europe that does not have a strategy that serves as guideline to reaching our production targets and many of us have already developed and run through one or more strategic cycles. In 2019 the University Library of Southern Denmark had to renew its strategy.

The purpose of this presentation is to share our experiences with building a new strategy using a tool called Lego Serious Play (LSP) for our library and thereby to inspire your future strategy work.

We will not report on the mistakes we made along the way and the detours we came up with, just give you the recipe for how, in retrospect, we can see that it can and should be done, thus giving you our "best practice".

The concept behind LSP is based on the so-called 80-20 rule: that 80 percent of what is said at meetings is said by 20 percent of those present. The idea of LSP is to create a new common language: you build your thoughts in Lego, or rather metaphors thereof. We used a SWOT analysis to guide the construction of our current situation. The idea was to look into the future and rebuild the weaknesses into strengths and threats into opportunities. This little last feint in particular proved useful, because it got the attention of the participants towards the future: what obstacles should we overcome? What stood in our way? What would we like to achieve? What could we do ourselves? With this attention to the future and the shared insight and understanding that the construction and division of it had created, we were ready to formulate our library strategy.

Our presentation will be richly illustrated with pictures from building sessions and in case time and the venues facilities allows for it we will be happy to make a short demonstration during QQML 2021.

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Censorship in American Prison Libraries

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Abstract. A lack of access to information due to censorship still exists in today's society, one example being within our prison facilities. In 2018, Big House Books, a nonprofit organization that sends free books by request to prisoners in Mississippi correctional facilities, filed a lawsuit against the Mississippi Department of Corrections and the South Mississippi Correctional Institution located near Leakesville, Mississippi, when the institution started returning books to Big House Books and requesting, they only send religious books instead. Later that same year, the Human Rights Defense Center, a nonprofit organization working for criminal justice reform, filed a suit on behalf of prisoners of the Forrest County Jail located in Hattiesburg, Mississippi, stating that all books and periodicals other than the Bible and occasionally other Christian publications, had been banned from the facility.

The current study is an in-depth case study of these two cases of censorship in southern Mississippi correctional facilities. Through a series of qualitative interviews with individuals connected to the cases, the study seeks to better understand the current phenomenon of censorship in prisons. Participants included prison employees, lawyers, and others involved in the two cases. Whether it be through services such as an actual library or information center provided by the prison facility, or the facility allowing books and other materials to be sent to inmates, incarcerated individuals have the right to access information. This study seeks to

enlighten and act as a catalyst for change regarding censorship that is occurring within prisons today.

Keywords: Censorship, Information Access, Intellectual Freedom, Prison Libraries, Social Justice

Cloud-based Library Management System in South Asia: An Exploratory Study

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Abstract

Purpose. Changes brought about by technology, increased user expectations, increasing data generated in libraries and reduced budget have strained libraries to think of measure and scale the gap. Due to on demand self-service, wide access through the web, resource pooling, rapid elasticity and measured service, cloud-based library management system has gained huge attention among the library community globally. To examine the current practices of cloud-based library management system (CLMS) among the South Asian countries (India, Pakistan, Bangladesh, Sri Lanka, Maldives, Nepal, Bhutan, and Afghanistan), the present study seeks to address *Do they use cloud-based LMS? Which cloud-based LMS system do they use? How much cloud-based LMS fulfilling their need in the library? Are there any challenges of using this cloud-based LMS?*

Design/methodology/approach. We relied upon the qualitative survey method for collecting data with open and close-ended questions. Questionnaire sent to university librarians by e-mail. Regional South Asia Chapter of Association for Information Science & Technology (ASIS&T)'s chapter mailing lists were used to collect data. We started to send out the questionnaire on 5th of January and the method of sampling was purposive.

Findings. A preliminary analysis has been done using coding process of the answers given by the respondents. Till 22nd February, 2021 we got back 23 responses. The email survey was truly international, with respondents coming from 5 countries excluding Afghanistan, Nepal and Bhutan. We got highest number of respondents from Sri Lanka (7) which is followed by Bangladesh (6), India and Pakistan (4) and Maldives (2). From the initial data, it was found that most of the respondents came to know about CLMS from their colleagues and they have intermediate level of knowledge of this system. Out of 23 responses, most of the respondents (09) replied that they do not use this system and 3 from Bangladesh, Pakistan and India replied that they are using this in libraries. Most of them agreed that lack of awareness and technical knowledge, data privacy issue, negligence from the employee and inadequate cloud based practice and local service provider refrain them to use CLMS. Institutional support, arranging more training and workshop, establishing a South Asian cloud collection of knowledge and integrated policy of using CLMS by the respective countries could improve the use of CLMS in this region. However, only a preliminary set of analyses is provided in this paper. The complete instrument and detailed analysis will be published subsequently.

Originality/value. Cloud service is not widely used in this region, and this is the first time an effort has been made to explore the cloud adoption of libraries in South Asia. The findings of this study will help to raise cloud service awareness among library professionals and encourage the authorities to adopt appropriate strategies and policies to resolve cloud adoption in libraries.

Keywords: Cloud service, cloud awareness, library management, South Asia, ILMS, Cloud library, Library software

Collaborative Pedagogy in Virtual Learning Environments: Perspectives from Two Academic Librarians

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Abstract. Every semester, faculty members from the Research Services and Special Collections Departments of Mississippi State University Libraries collaborate on instruction for an upper-level undergraduate English class, EN 3414: Critical Research and Writing in Literary Studies. The library component of this course focuses on teaching students how to find and locate library resources to develop and inform their research and is normally taught face-to-face. However, due to the COVID-19 pandemic, all library instruction was moved to a virtual environment. Thus, the library instructors for this course, a humanities librarian and manuscripts librarian, had to be creative in their pedagogical approaches in terms of instructional delivery, assignment design, and access to library resources. This is especially true in regard to the course's culminating assignment, a digital humanities project, which requires students to find archival materials that provide historical context and authority to their interpretations of literary texts and to exhibit those objects online via the Wix platform. In this presentation, the librarians will speak on their methodology for transitioning reference and archival instruction online and describe the necessary measures taken to ensure students meet necessary course objectives and develop research skills pertinent to their field of study. Other points of discussion will include instructional successes, setbacks, and lessons learned while teaching library and archival research skills online.

A combination of research and training for the development of the BIBLIO new job profiles for the library sector in Europe

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Abstract. The digital transformation affects the operation of libraries and changes their role, while librarians are customer-facing professionals and need to be able to identify their users' needs, anticipate these, and respond in a timely manner. The challenge in libraries is that the gap in the digital and transversal skills of their professionals remains an issue not adequately addressed.

Following a mixed research activities and methods applied in the library/archive sector in five (5) European countries (Italy, Bulgaria, Belgium, Latvia and Greece) through the "BIBLIO-Boosting digital skills and competences for librarians in Europe" EU project currently ongoing, the training needs of library/archive professionals have been identified and the findings are included in the respective reports available in five (5) national languages (<https://www.biblio-project.eu/.../findings-biblio-research/>). The related skills and competences are mapped into the DigComp framework – more precisely, the BIBLIO research findings highlighted weakness in three DigComp 2.1 areas of competence: safety, digital content creation, and problem solving. Two distinct job profiles have been developed based on the results of the research activities carried out: Community Engagement and Communication Officer-CECO(<https://ej.uz/38ju>) and Digital Transformation Facilitator-DIGY (<https://ej.uz/fzze>). They are addressed through a VET curricula and blended training (including a MOOC) currently under development. European instruments (EQF, ECVET and EQAVET) are applied, facilitating the recognition

and validation of qualifications, while job role profiles are mapped to ESCO and e-CF. The auteur aim is to boost the digital skills of the library professionals to at least an “intermediate” level across all DigComp 2.1 areas.

Since technology continues to develop, the BIBLIO tools help the transition of the library/archive sector into the digital era, by benefiting its professionals (employed and/or unemployed) and by enabling it to offer innovative services to its users.

Keywords: libraries, digital skills, transversal skills, new job profiles

Communication Through Social Media: Blogs and Wikis in Libraries

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Abstract: Alexander Halavais wrote about blogging as a "free frame of reference"¹ and pointed to the fact that at the beginning of the 21st century there was a real "explosion" in the number of those who started writing in public. Most accepted the blogosphere as a space of freedom and democracy that provides us with opportunities to rethink the social order and our role and place in it. In this paper the importance of blogs being a turning point in publishing, is outlined, as well as the fact that users and their comments have quite important role in constituting the blogosphere. The openness of the blog is crucial for the interaction of authors and readers, "the border between the author and the reader is blurred or even lost, turning author in reader (comments on their blog) and readers in authors (comments on someones's blog) ".² The outbreak of the COVID-19 epidemic and the transition to online communication has inevitably led to changes, different, new "explosion" in the number of those who started writing/reading/communicating on the internet/in public. The paper outlines the ways in which librarians have turned to the dynamic environment of the blogosphere and the aim of this paper is to provide an outline of the possibilities that libraries have in order to improve communication with users by using blogs and wiki technologies. Within the concluding considerations it would be briefly referred to the Covid 19 pandemic and to the social media as a specific and valuable forum for librarians and an ideal place for spreading information and news, encouraging feedback and generating creative content.

Keywords: Social Media, Blogs, Wikis, Communication, Media, Libraries, Authors, Readers.

Comparative Study of Third-Party Confliction with the Private Property in Virtual Environment

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Abstract. Utilizing Intellectual property and Investigation rights over its breach claim and leniency of restitution of claimer rights relied on supportive injunction so that to prevent evidence premises deterioration which enable the petitioner to prove the claim, hence that issue expose the privacy of third party to ruining , consequently the governing challenge revealed during restoration of intellectual property rights, what protocol is applicable to protect the

1 Alexander Halavais, *The participatory cultures handbook* ed. Aaron Delwiche i Jennifer Jacobs Henderson (New York, Routledge, 2013), part I: 109, Kindle Edition.

2 Petrović, Dalibor M. 2012. "New forms of social networking : the Internet's role in establishing interpersonal relationships in Serbia." PhD thesis, Faculty of Philosophy, Belgrade. Available at [10.2298/BG20121008PETROVIC](#).

privacy, therefore courts of law are bound to examine the implied outcomes attributed to third party privacy irrespective of the case for investigation while to redress intellectual property claim and enforcement in the virtual environment, then injunction writ to be ordered.

There are two distinctive axioms in common law, initially provisional injunction known as Anton Piller Order applicable for entity discovery, secondly the axiom cited in Norwich Pharmacal case concerning entity discovery.

Revision in axiom (Norms) and injunction issuance requirements on the primary investigations, the discrimination between entity and information disclosure, constraining the scope of entity and information disclosure and precaution measures to be taken in transient Injunctions issuance including efforts on the protection of privacy and adjustment on the discussed axioms pursued.

Collection of Information to be done by mediators without Judicial order application in connection with crimes in terms of communication tracing and tracking , disclosure or application of communication contents in contrary to the axiom which are authorized in constraint and specific conditions in Iranian law.

Keywords: Entity disclosure, privacy, Information disclosure, Private Property.

COVID-19 and its impact to libraries in Finland and Romania

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Abstract. The aim of this article is to analyze how the COVID-19 pandemic affected library operations in Finland and Romania. In these countries different kind of strategies were used during the pandemic: closing the libraries, allowing certain functions and developing new services were the main strategies. In this article, we present different ways in which the libraries reacted to pandemic and what kind of experiences they have from the spring 2020 when the COVID-19's first wave begun.

The article is based on the material collected both from Finland and Romania in April 2020 when COVID-19 pandemic started. The situation in Finland was analysed by Haasio and Kannasto (2020), but the experiences from Romanian libraries have not been investigated yet. In this article the reactions caused by the pandemic in libraries and their consequences in Finland and Romania are compared.

The main research questions of the study can be summarized as follows:

- 1) how did the libraries react to the pandemic ?
- 2) how did the pandemic affect the operation of libraries?

The results show that even though the pandemic has affected negatively by closures in both countries, in some cases it has created new opportunities to guarantee and provide services. For example, the social media and its services was used more widely in some libraries, which did help not close entirely for customers but on the contrary offer new services to their customers via internet. In some cases new ways to serve customers were developed in those libraries which didn't close down all their activities.

Closing down the libraries was understood, but the concern about your own livelihood and future was noticeable. Also the long-term effects to libraries were issues of concern.

Reference

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Covid-19 and the catalyst to digital: implications on collection development strategy

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Abstract. The Covid 19 pandemic and subsequent lockdowns in various countries had a huge impact on academic institutions and how classes were being conducted and delivered. Online lessons became the new norm. Research needs and undergraduate learning activities also served up new challenges, when libraries shut due to nationwide lockdowns and travel restrictions. Academic libraries have found the need to shift their collection development practices and philosophies to ensure they can support teachers, students and researchers adequately in the short-term and long-term, regardless of geographical boundaries.

One of the biggest change for the Singapore Management University library during the pandemic was the shift from supporting classroom-based instruction to online learning. To respond to the needs of the situation, the library took steps to shift our collection development practices to be more e-focused, shifting from collecting print books to e-books and exploring various e-book acquisition and subscription models. With faculty transitioning from face-to-face instruction to online course delivery, we took the opportunity through active outreach to identify required teaching and resource materials where an online equivalent would be required. In addition, we also embarked on a Print-to-Electronic conversion exercise, – purchasing electronic versions of course reserve titles and subscribing to electronic textbooks via the Vitalsource platform, so students can access and read their core textbooks online, from anywhere.

We also used this time to promote the access and discovery of open education resources (OERs) to instructors, researchers and students and started with adding 700 Open Textbooks to our discovery platform and supported online course delivery by digitizing some content to enable seamless access.

Digitization of resources for course readings fared highly in the requests received and there was a need to ensure that empathy with the needs of the students should still be carried out without any infringement of copyright laws and be within the fair dealing and educational exceptions allowed. In the absence of emergency copyright exceptions, the library embarked on other strategies, like writing in for permission to publishers and also implement a pay-per-use licensing option.

The pandemic was a catalyst for academic teaching, learning and access to academic resources to go digital. The SMU Libraries story is one about pivoting, being responsive and exercising flexibility in managing collection development, access to resources and copyright activities in an innovative way. This presentation will focus on how the SMU Libraries at the Singapore Management University was affected by COVID-19 and the steps they took to adjust their collection development practices, ensuring online access to library resources while at the same time managing copyright compliance.

Keywords: Covid 19, pandemic, collection development, digital access, online learning, OER

The COVID - 19 impact in the behavioural trends in the use of printed book or e-book: a case study in Portugal and Brazil

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Abstract. In a time of serious health crisis worldwide, this study is the extension of a case study already started (in February and March 2020) about the issue of reading behaviours and preferences between the use of books and e-books.

The COVID-19 pandemic came to impose social distancing in the world, closing universities, schools, and other services. The implementation of Internet services has presented itself as a valid response to the change that has so brutally arisen.

Naturally, everyone had to adapt it. In this context, the question about the preferences of using books and e-books is now even more relevant.

This paper analyses the COVID-19 impact in the behavioural trends in the use of scientific information from printed books and e-books in Portugal and Brazil. To this end, a survey was conducted on a sample of users from various Portuguese and Brazilian higher education schools and public libraries. The first part focused on the characterization of respondents, which includes data on gender and qualifications attended. In the second part, we obtained viewpoints about advantages and disadvantages of each medium, frequency of use, choice of medium according to the purpose of reading and devices used. The results let us examine the factors that influence and change the behaviours of users concerning their choice. Research such as this benefit to support the decision in selecting the information resources to be bought pondering user preferences, but also to define strategies for advocating the use of various media that, rather than competitors, should be similar.

Keywords: book, e-book, behavioural trends of reading, COVID-19, Portugal, Brazil

Croatian prison libraries: A shift from correctional librarianship to correctional programming?

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Abstract. Compared to other library users in Croatia, prison libraries and prisoners are most affected by the public health crisis caused by the COVID 19. During the lockdown, public libraries and university libraries were able to provide some library services online or by offering services while maintaining physical distance. However, prison library users are not allowed to access the Internet for security reasons; cooperation with the public libraries and lending their books is not taking place and all visits from the outside world are still prohibited. All cultural and educational projects of non-governmental organizations or those conducted by other external experts, in which prison libraries also participated to a certain extent have been completely suspended. The exception was made by the reading club activity in the Women's Penitentiary Pozega, where the female inmates continued to hold book meetings and led discussions according to the pattern adopted through the previously conducted NGOs' projects.

This paper analyses a good practice of prison reading projects in the context of the Guided Reading Program, a model of cooperation between public libraries and the prison system in Croatia, which was established and scientifically evaluated in 2013. This program was designed as a special rehabilitation program. It can successfully be offered through guided reading and structured discussion for therapeutic group work with prisoners, where prison libraries can act as a holder, participant or facilitator of such correctional programs and can successfully perform resocialization as well as recreational and educational tasks.

Keywords: female penitentiary, guided reading program, outcome-oriented approach, prison library, rehabilitation

Decisive Indicators for the implementation of Sustainable Institutional Repositories: Exploratory Study

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Abstract. Institutional Repositories (IRs) recorded a remarkable impact on scholarly communication, knowledge creation, and research sharing. Lasting the impact of IRs within the socio-political, financial, and technological changes requires building an integrated and sustainable eco-system. Sustainable IRs entails implementing deliberate strategies to ensure the practice thrived over time. These strategies involve stakeholders' engagement, adherence to international standards, developing effective policies, establishing collaborative partnerships among others. However, implementing sustainability strategies requires proper identification of sustainability indicators. This paper attempted to explore indicators for sustainable IRs. The paper adopted a descriptive qualitative approach to investigate the menace of IRs sustainability in the Nigerian context. A Semi-structured interview was used as an instrument for data collection supported by group discussion. The analysis of the interview responses revealed fort-four (44) indicators responsible for the implementation of sustainable IRs. The indicators were thematically categorized across nine factors. These indicators were empirically meant to gauge and enhance the sustainability of IRs practice from different perspectives. Just like in many disciplines, the issue of IRs sustainability is adequately addressed. This paper provides a basis for understanding the peril of IRs sustainability. The paper will serve as a good guide for the implementation of sustainable IRs within academic institutions. The paper is designed to help IRs managers, library administrators and, other IRs practitioners identify areas that are critical for the implementation of sustainable IRs.

Keywords: Sustainable IRs, IRs Sustainability indicators, Lasting the impact of IRs, Qualitative evidence.

Desperate Times Call for Desperate Measures: A comparative analysis of services between traditional and distance libraries in COVID-19 era

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Abstract. The emergence of the pandemic posed new challenges to libraries, forcing them to try and push their limits regardless of their nature (traditional or distance service). Library professionals were pressured to respond accurately and responsibly to various users' needs

regarding training, access to information, communication etc. The Library and Information Center (LIC) of the University of Patras and the Hellenic Open University Distance Library and Information Center constitute two academic libraries that serve academic institutions of different genre. By the time of the first phase of the outbreak (spring 2019) they attempted to meet their communities emerging needs through various services aspiring to a seamless provision of services. Currents' research primary objective is to record and compare the actions of these two different libraries in order to determine if different type of libraries follow different behavioral patterns in order to cover community's needs. At the same time, researchers analyze the questions posed by these communities via emails, telephones, chats and social networks in order to highlight the immediate needs that arose. A small scale survey follows up the categorization of user inquiries in order to evaluate the quality of the services offered by the aforementioned libraries.

The outbreak was a motive for libraries to test their resilience to extreme situations which affect their operation. The notion of the available options for service implementation will help libraries react instantly and confidently as they will know their effectiveness. Our study offers an overview of services offered by libraries having limited resources and presents their attempt to remain vivid and effective under any circumstances.

Key words: COVID-19, User needs, User Satisfaction, Service Evaluation, Distance service libraries, academic libraries

Digital and informative skills: the differences between students and the role of the school

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Abstract. Digital and informative skills are not widespread among Italian students because they are not adequately developed at school, this emerges from ICILS 2018 (International Computer and Information Literacy Study, 2018 cycle). The survey was carried out by IEA (International Association for the Evaluation of Educational Achievement) in collaboration with research national Institutes, for Italy the INVALSI (National Institute for the Evaluation of the Educational System of Education and Training). The computer-based assessment, conducted on students at the eighth grade, involved 12 countries in 4 continents detecting a generally critical situation, particularly for Italy among ICILS participating EU countries. CIL (computer information literacy) was defined as “an individual’s ability to use computers to investigate, create, and communicate in order to participate effectively at home, at school, in the workplace, and in society” (Fraillon, 2013). The growing importance that these skills have for active participation in public life has been emphasized by the changes resulting from the Covid19 pandemic.

According to ICILS 2018 the students, despite being digital natives, do not possess sophisticated digital skills; the mere presence of computer equipment at school is not sufficient to improve CIL, in the dearth of teaching and practice of ICT tasks (Fraillon et al., 2019).

This contribution focuses on Italian sample of 2810 students, with regards to CIL scores and information collected through the student questionnaire. Italian student results are studied in relation to: 1) students' characteristics such as gender, migratory origin and socio-economic-cultural background; 2) activities that contribute to developing students' digital and informative skills.

The hypothesis investigated is that the data converge to confirm the useful and necessary inclusion in the school of computer information literacy. High differences are related to the socio-economic-cultural background of the students; in this context, learning resources availability including number of computers at home, are also relevant. However, the students

achieve better if they learn and practice frequently ICT tasks in school environment. The results support the role of schools in the development of CIL and overcoming digital divide, suggesting the need to integrated CIL into the school curriculum.

A decisive contribution could come from innovative school libraries, recognized under the PNSD (National Digital School Plan, Law 107/2015) as a privileged place to surmount all forms of disadvantage, including the digital divide. The historical link between library and information literacy is recalled by the achievement of the best ICILS results in Denmark, a country where school libraries are compulsory in all schools.

Keywords: Socio-economic-cultural background, gender, migration origin, digital and information skills, ICILS, Information literacy.

Disconnecting from Social Networks

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Abstract: Given the massive degree of penetration of Social Networking Sites (SNS) on a global scale, all kinds of organizations, libraries included, have seen in social networks a first-class opportunity to promote their products and services. At the current juncture more than half of the world uses social media. The ongoing Coronavirus pandemic has substantially increased online and digital activities globally, which gives rise to new digital behaviors by all users involved.

However, contrary to opening new ways of communication, the use of SNS has been linked to several negative emotional states. Fatigue, discomfort, and overload may diminish perceived benefits of social media participation and further strengthen individuals' intention to discontinue using SNS in their daily lives. Hence, user discontinuance intention is of great importance to organizations' social media marketing strategy.

In this context, the purpose of the proposed research is to investigate library users' intention to permanently or intermittently discontinue using SNS. The proposed research framework incorporates factors that have been found to play a key role in the use of SNS, i.e. self-efficacy, fatigue, and three types of overload (informational, communication and social). The primary data will be collected via a structured questionnaire.

Overall, the proposed research aims to investigate a modern phenomenon, original not only to Information Science, but also to Social Media Marketing and Information and Communication Technologies. At the same time, the factors incorporated in the proposed research model allow for a deeper understanding of the reasons why and how users decide to stop using SNS and to evolve in the light of experience and best practice.

Research on this topic is also highly relevant due to higher social media usage during the pandemic. It may be possible that usage overload becomes more evident after the pandemic, leading to more users dropping out of social media. The study's results could be utilized by libraries and other information organizations for assessing and, if necessary, for reshaping their digital marketing strategy regarding audience development, services promotion, awareness building and information dissemination.

Keywords: social media; discontinuance intention; overload; SNS fatigue; library marketing

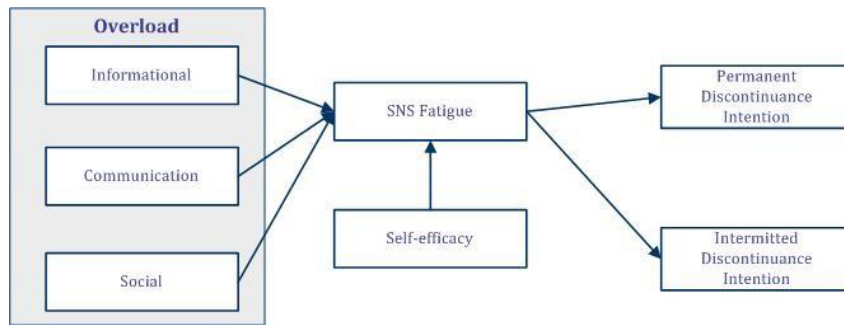


Figure: The research framework

Funding: This research is co-financed by Greece and the European Union (European Social Fund/ESF) through the Operational Programme “Human Resources Development, Education and Lifelong Learning 2014-2020” in the context of the project “Leaving social media: factors affecting intentions to permanently and intermittently discontinue using social networking sites” (MIS 5050188).

Distant Reading: more accessible knowledge

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Abstract: This poster will outline the University Library Belgrade (ULB) project *Distant Reading* that supported the inclusion of Serbian language and literature in European action under the COST CA16204 - *Distant Reading for European Literary History* program, which runs through 2021. One of the main goals of this action is to build a multilingual European Literary Text Collection (ELTeC), in at least 10 different European languages, which would allow to compare the results of the analysis corpus thus obtained through national cultures. ULB created a Distant Reading platform³ on which Serbian novels and travelogues from the period 1840-1920 were presented. Within the project, automatic marking of corpus texts by specific language objects was successfully performed: names of people, locations, organizations, etc. In this way, digital versions are searchable by semantic keys. The result of this is corrected and annotated corpus, with the link between authors and works with various reference databases of openly linked data, which is a very rich source for literary-linguistic and socio-humanistic research, as well as for researchers and students in the field of digital humanities, librarianship and informatics. Additionally, ULB also organized workshops for text correction, metadata preparation and evaluation of auto-tagged language data.

Key words: distant reading, corpus of literary texts, digital humanities, open related data.

e-Health literacy and libraries in covid-19

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Abstract. Covid-19, the new type of coronavirus, was declared officially as a pandemic by the World Health Organization (WHO) on March 11th, 2020 just a few months after its first report in Wuhan, China. Meanwhile, the research community as well as the wider public were craving for information on the specifics of the new virus (i.e. symptoms, treatments, vaccines,

³ www.udaljenocitanje.unilib.rs

origin etc). However, given that the virus was new and not studied yet, the available information was limited and very difficult to find. Most importantly, it was obvious that the wider public significantly lacked e-health literacy competencies and skills. Social media and blogs were the main sources of information identification providing the means for everyone to promote easily, effortlessly, and instantly from misinformation to fake news. The widespread and adoption of fake news had a severe impact on the health authorities and nations in their attempts to properly inform the public, communicate the necessary measures to be taken and successfully enforce them. The importance of e-health literacy was more evident than ever before and this time to a wider audience and not only to health professionals. This paper aims to report on the role of libraries in promoting e-health literacy to the public; the skills and competencies that are needed and the training information professionals need to undergo to deliver efficient and effective e-health literacy programs. Literature review and content analysis are used as main methods of analysis. This paper contributes to informing our understanding regarding the need for developing and offering e-health literacy programs not only through times of disruption and health crisis but as a mean for ensuring long-life health and prosperity.

Keywords: COVID-19, libraries, digital services, misinformation, e-health literacy, fake news

Evaluating user experience in a digital community archive

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Introduction. Community archives are vital for preserving the historical and cultural heritage of a region (Flinn, 2007). Local archives are often organized by volunteers and represent grassroots activities (Caswell et al., 2017). However, it is often challenging to sustain community archives (Newman, 2011). Building digital archives and evaluating user experience requires collaboration with other partners in the community. This presentation describes a research project that evaluated the user experience of the Park County Local History Digital Archive, available at <https://pclha.cvlcollections.org/>. The Park County Local History Archive is a community archive located in the mountainous region of Colorado. The Digital Archive was built in partnership with the University of Denver Library and Information Science program and the Park County local government. It includes digitized photographs, oral histories, and exhibits about the history, culture, and everyday life in Park County, Colorado.

Objectives. The goal of the study was to understand the types of use in community archives and to evaluate multiple facets of the Park County Local History Digital Archive from the user perspective.

Multifaceted evaluation studies of digital archives are an important aspect of understanding user experience and improving the quality of the systems (Xie, Joo, & Matusiak, 2018).

Methods. The study was designed using a mixed-methods approach. Data was collected through a questionnaire and semi-structured interviews to understand user experience in searching and navigating the Archive and to gather user opinions about the coverage, quality of objects, and the level of description. The residents of Park County and those interested in the Park County history and cultural heritage were recruited for the study. Twenty-four community members participated in the study.

Results. Most participants (64%) rated the navigation and use of the Digital Archive as extremely easy. Only one participant found the navigation somewhat difficult. The participants highly evaluated the quality of digitized objects – 82% found the quality of digital objects (photographs and oral histories) as extremely good and 18% as somewhat good. However, the participants had mixed opinions about the coverage of the collections and the level of description in the metadata records. Several users noted the limitations of the coverage and would like to see more materials about the community members who made an

impact on the region but whose contributions are often not acknowledged - Native peoples, women, people of color, and immigrant communities. In the interviews, the participants expressed a desire to see more descriptive information about the digitized objects and more groupings by subject to facilitate browsing.

Conclusion. Evaluation studies of digital collections tend to focus on usability aspects of user experience, but rarely evaluate other aspects of digital archives and collections (Kelly, 2014; Li & Liu, 2019). While this study provides some data on the ease of use, it also reports findings related to the quality of digitized objects and metadata. The data from the study have been used to improve the coverage and quality of the Digital Archive. The findings are also useful to archivists and volunteers managing local community archives.

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Evaluating User Experience of the Portuguese District Archives websites

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Introduction – The aim of this study is to analyse the user experience (UX) that researchers have when accessing the websites of the Portuguese district archives. There are 20 Portuguese districts, 16 in the mainland, one in Madeira and three in the Azores islands. The Coimbra and Braga district archives are also university archives and are the only ones that aren't under the supervision of the National Archives Institute. In a year marked by the lockdown due to the COVID-19 pandemic and the gradual opening of public services, the use of websites to search for information has often become the only possibility of research, thus justifying the urgency of carrying out this study,

time. The target audience was chosen considering three categories: historians from different branches, genealogists and users who request records certificates, in a total of 100 sent.

Results – unprecedented in Portugal.

Methodology – To do this, and as a data collection technique, we chose to conduct a questionnaire using google forms, where it is possible to measure attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty. The developed questionnaire model was based on the one proposed by Hinderks, Schrepp and Thomaschewski (2014).

The questionnaire was sent to researchers in February 2021, with a one-month response. A reflexion on the access to information of the district archives has to consider that Portuguese district archives are under the National Archives Institute supervision and have alike webpages and use alike web design.

Since the surveys will be done in February, and data collection on March 2021, the results can only be presented in the conference and written paper. The main purpose being to form an overall view of UX of the Portuguese District Archives websites.

Discussion –As mediators between a physical world and a digital one, the Portuguese District Archives should regard UX as an improvement process, so that these relevant stakeholders may be heard. Without such studies, websites do not evolve or improve given the expectations of its users and potential users.

Evaluation of Public Library Adult Programs: Use of Servqual and NIPPA Assessment standards

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Abstract. The aim of this study is to identify the quality and effectiveness of the adult programs provided by public library using quantitative metrics. The quantitative metrics are based on ServQual Method and National Impact of Library Public Programs Assessment (NIPPA, June 2019). ServQual covers several variables namely: tangible, reliability, responsiveness, assurance and empty. NIPPA focuses on program characteristics particularly on the outcomes. The study population are a small Northeast Kansas public library adults who participated in the library program from July 2019 to March 2020. This study is designed as quantitative research which analyses the quality and effectiveness of the services provided by the library by analyzing the role of each factor based on ServQual Method and NIPPA assessment guidelines. Data will be collected using questionnaire with Likert scale. The data obtained will be analyzed in a descriptive manner. The impact of this study for the selected public library is able to provide information about the quality and effectiveness of existing adult programs and can be used as input to develop strategies for developing the future adult programs and as well to make evaluation an integral part of program and service planning, implementation and delivery. Ultimately, the goal is to apply evidence-based and cost-effective practices consistently in library adult program and service delivery.

Keywords: ServQual Model; ServQual in public libraries; Library program assessment; NIPPA Programs Assessment

The evaluation of the 20'30 Agenda on sustainable development in European libraries

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Abstract. The evaluation of the Agenda 2030 on sustainable development in European libraries is a thorny process and relates to libraries' interaction with the community they refer to.

In an EBLIDA report (2020) two different perspectives were proposed: the first deals with some practical SDG applications in French libraries; the second is a study on library outcomes in the Netherlands.

In another case – the contrast to fake news in the name of free access to accurate information – UN SDG indicators cannot be applied. Impact studies have a profound influence on libraries and are essential for advocacy purposes; nevertheless, they are not easy to match with SDG indicators.

An indicator which is relatively simple to measure is participation of libraries in European Union programmes and the ratio between European and national library expenditure. This may be an indicator of sustainability especially if access to libraries, museums and other cultural

institutions is considered one of the factors measuring domestic Fair and Sustainable Welfare (BES).

In my contribution I will review different methodologies of evaluating SDGs in libraries and how important it is, both for implementation and assessment purposes, to investigate the context in which libraries operate and the publics they intend to serve.

Keywords: Sustainable development and libraries, SDGs, evaluation, impact assessment, fight to fake news

Faculty Recognition of the Value of Librarians: Development of an Open Access Textbook

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Abstract. Librarians have long endeavored to demonstrate the value they can contribute as educational partners on many academic fronts. One of the current popular areas of doing this is in the process of identifying and/or developing open educational resources (OER) to serve as a replacement to print textbooks. Texas A&M University librarians have participated in such projects resulting in over one million dollars in textbook savings for the students in some disciplines; however, funding still proves to be a consistent barrier. Recent collaboration with instructional faculty across multiple educational system components to obtain government funding towards the creation of an open access resource, has opened new and exciting librarian role opportunities.

Due to academic momentum of converting print course materials to open access alternatives, and the potential for acquiring significant external funding, instructors at the College of Nursing had an interest in flipping to these resources for their students. The library liaison to the college had established proven relationships with the faculty through past high-quality service delivery. Consequently, Texas A&M University librarians were approached to identify current OERs that could be used as an alternative to current print solutions. After exhaustive searching, the group of instructors from the College of Nursing and the library liaison concluded that no appropriate open access resources exist. An additional librarian with previous open access resource experience was included to explore the idea of creating a new nursing open access textbook. To meet both the goal of the grant funding and reach a broader audience for impact, nursing programs across the system were brought into the discussion. This expansion of contributors also opened the door for additional librarian involvement from the various institutions.

From the beginning of the process, the subject librarian was seen as a valid avenue for appropriate content alternative identification, a viewpoint that is not uncommon at many academic institutions. However, upon finding an existing paucity of resources, the librarians remained in positions of authority as the group approached a solution of open access resource creation. Although there is a heavy reliance on the instruction faculty for the actual content of the new textbook, throughout this process and moving forward, the librarian roles included those of researcher, advisor, consultant, lead and co-developer(s), and editor. Bringing librarian experience as well as subject resource expertise into the picture established library personnel, services, and resources as authoritative partners to the process and increased providers of developing a final product. The group found all contributors of such value, that it was agreed to move forward with plans to create the resource regardless of whether or not the funding was awarded.

Keywords. Value, partners, roles, OER, OA

A Flock of Digital Birds, One Remote Stone: Using Remote Work to Remediate and Advance Transcription Projects

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Abstract. In March 2020, Special Collections at Mississippi State University began piloting a remote distributed transcription project in order to meet the need for work-at-home projects for archives students, faculty and staff, as well as for staff from other library departments, who were working remotely due to COVID-induced shutdowns. The project enabled the department to both service long-standing digital debt (transcriptions needed to bring our digital collections into line with ADA requirements); bank transcribed material in anticipation of future digitization; and in conjunction with other initiatives, support ongoing and future remote teaching and learning and digital scholarship.

Keywords: transcription; remote work; digital scholarship; digital debt

From Face-to-Face to Online Instruction: Librarians' Experiences in Conducting Online Library Instruction

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Abstract. This study explores the school and academic libraries' current practices in online distance library instruction during the COVID-19 pandemic and investigates school and academic librarians' experiences while teaching remotely. This study attempts to answer the following research questions: 1. What were school and academic librarians' experiences in switching face-to-face library instructions to online distance teaching during the pandemic?; 2. What institutional supports are needed for online distance library instruction?; and, 3. What are the challenges and possibilities of online distance library instruction in school and academic libraries? An online survey was distributed to members of the Philippine Association of School Librarians (PASLI) and the Philippine Association of Academic/Research Librarians (PAARL) in March 2021. All data were analyzed using SPSS. In general, school and academic librarians were not completely prepared to switch from face-to-face classroom to online library instruction. Respondents experienced difficulty and stress as they transition to online teaching due to limited access to educational technologies, lack of teaching experience in an online environment, poor working conditions at the home workspace, and fear of digital technologies. This study's findings can be useful for providing a better understanding of librarians' readiness and experiences in conducting online classes for library instruction. This study may benefit the profession by understanding school and academic libraries' practices in providing library instruction in an online environment.

Keyword: Online library instruction, school librarians, academic librarians

Frontier Informational Structure: an efficient alternative to evolve towards assertive bibliographic research

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Abstract: This paper shows an efficient method to evolve towards users' assertive bibliographic research by means of infopragmatics' precepts. The four Infopragmatics' precepts are: 1) composing a research sentence; 2) inducing commercial academic information sources direct use over popular search engines like Google; 3) Building up a Linguistic Storm based on controlled vocabulary; lying the topic cornerstone. Some results are provided.

Keywords: Infopragmatics, Linguistic Storm, Google, Information Literacy, Frontier Informational Structure, Technology Education, Technophobia, Users 2.0, Linguistics, Controlled Vocabulary Matrix.

Green library as a subject of research within library and information science – a bibliometric perspective

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Abstract. Environmental issues are currently gaining their due prestige. The organisation's functioning is considered today from the perspective of social responsibility, a component of which is the organisation's responsibility for its impact on the natural environment. This aspect of the functioning of libraries, although ambiguously defined, has existed in the scientific literature. Nowadays, green libraries have acquired a new context, which is the impact of human exploitation of nature on the spread of new diseases, including COVID-19. The COVID-19 pandemic has affected the activities of libraries and forced them to remodel their existing practices. It also confirmed the need to organise libraries in such a way as to minimise the negative impact on the environment and the need to offer services aimed at environmental education. Along with the increase in literature on green and sustainable libraries, they began to be analysed from the perspective of developing this area of research. Since the 1990s, there has been an increasing number of scientific literature dealing with sustainable development issues, including environmental sustainability, concerning the activity of libraries. Concepts such as green libraries, green librarianship, sustainable libraries have already entered the conceptual apparatus of library science and librarianship. Along with the increase in literature, attempts were made to synthesise and analyse it to develop a theoretical framework for the phenomena mentioned before and to create a typology of thematic areas, define terminology, describe the evolution of green and sustainable libraries. The scientific literature on green libraries, reflecting knowledge on this subject, became this matter of the research presented in this article. The article aims to determine the numerical increase in publications on green libraries and the dynamics of their development and determine the thematic structure of scientific literature in the field of green libraries and its changes as a representation of research in this area. The data source for the analyses was the Web of Science (WoS) Core Collection.

Keywords: green library, green librarianship, sustainable library, library science

Gtg, ttyl: a discourse analysis on formality and code-switching in chat reference

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Abstract. Chat reference facilitates on-time and uncompromising library and information service delivery. Undeniably, this service platform is of high preference among the members of the service community -across segments and levels. This holds heavier truths to millennials and digital native patrons. Aiming to improve service rendition, librarians and information professionals subject their processes to qualitative and quantitative evaluation with exclusivity to a design or employing both in parallel. Points for further improvement were elucidated after juxtaposing current services to existing standard policies, conducting user surveys and interviews, *et cetera*. Transcript analysis was seen to be one of the methods expended by libraries to review their current service.

Current studies enjoying the breadth of data from chat transcripts, have identified linguistic dimensions disclosing the *status quo* of chat reference, thereby informing the future directions of their services. This was after a keen observation of the interaction between the interlocutors – the patrons and librarians themselves. These researches focused on the formality of the computer-mediated discourse considering the use of emoticons and non-verbal compensations as substitutes to human emotions and gestures in in-person reference transactions along instant messaging (IM) forms e.g. 'haha', 'hehe', and other forms. Contractions and the use of abbreviations and acronyms also revealed their language characteristics differentiating reference chat discourse from formal written communication which the literature concluded that patrons were dominantly using informal language different from how librarians 'speak' through chat.

Inspired by the framework from the reviewed literature, this paper carefully examined chat transcripts between patrons and librarians in an academic library and to identify the formality of the interlocutors' language throughout the discourse. Absent from the literature, which this paper presents uniqueness, is the function of the 'language shifts' of patrons and librarians. Code-switching in linguistics gives clarity on why interlocutors switch from a language to another. Given the linguistically diverse nature of the library community under investigation, code-switching is considered and how it affects service satisfaction. In addendum, the study included 'registers' to identify whether the patrons considered the chat platform as a library space. In linguistic terms, registers are circumstance-specific, specialized vocabularies and jargons connecting 'insiders' and excluding 'outsiders'. The chosen methodology was made possible by coding 372 rated chat transcripts from an initial corpus of 2, 325 chat transcripts of an academic year of 11 months (September 2018 – August 2019).

In consonance with existing studies, patrons were seen to be more productive in using language informalities whilst preserving the politeness in chat. The literature avers that librarians are least likely to use informal language, this study found that librarians are 'mirroring' the language of the patrons. Patrons switch languages to restate queries, describe scenarios, and clarify instructions during chat. Considering those findings on formality and language-shift instances of the interlocutors, the quality of the service experience was not affected.

Keywords: chat reference, transcript analysis, computer-mediated communication, code-switching

How Academic Librarians Perceive Knowledge Management: The Experience of Bayero University, Kano, Nigeria

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Abstract. The purpose of the research is to examine how academic librarians' perceive Knowledge Management (KM), including their awareness and its contributions to academic library services in Bayero University, Kano, Nigeria. The research adopted quantitative methodology with cross-sectional survey design. Four research questions were framed to guide the study. The population of the study was all the 30 academic librarians of Bayero University, Kano (BUK). A structured questionnaire that was self-developed was used for the study. The copies of the questionnaire were distributed to all the academic librarians. Furthermore, the questionnaire was self-administered to make sure the respondents understood the questions very well. The data was analyzed through descriptive statistics with tables to further interpret the outcomes. Findings of the study indicate that majority of the respondents were aware of KM with a reasonable number of them indicating high level of awareness. The study similarly, revealed that majority of the respondents became aware of KM through independent study. The results also showed that respondents had positive perceptions towards KM with majority of them expressing that KM can encourage LIS professionals to gain new skills and experiences in addition to their traditional skills and so it is a welcome development in the LIS profession. Finally, the study concludes by stressing that integrating KM into academic library services has become inevitable for obvious reasons.

Keywords: Academic librarians, Perception, Knowledge management, Bayero University, Kano, Nigeria

How to create 3D printed models from academic data

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Abstract. In this paper, we describe the workflow of using a wide range of academic data and converting it into 3D printed models. During the last 7 years of operating the 3D printing service in the Bodleian Libraries of the University of Oxford, we have printed models ranging from MRI scans of human brains to enzymes involved in carbohydrate metabolism and topographic models for Earth Sciences. We also explore how 3D scanning can be incorporated into the service to generate 3D printable data that can be used to capture museum artefacts for digitisation. We aim to show how 3D printing can be used to create a successful service that supports real-world scientific research and outreach

The impact of 3D printing advanced technology in the academic area

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Abstract. An important result of the implementation of the INNO3D project at the Transilvania University of Brasov is the opening of the free 3D printing center for students, coordinated by volunteer students. After three months of operation, interviews were conducted on the activity of volunteer students and small research on the satisfaction of students who used the services

of the center. We present these results, their critical analysis, and proposals for improving the activity.

Keywords: 3Dprinting, international project, user satisfaction, volunteers

Information Literacy and College Student: What skills do they know, and how confident are they when applying these skills?

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Abstract

BACKGROUND

Information literacy skills are necessary for students to navigate higher education as well as their future careers successfully. Yet, there is limited research on students' knowledge and self-efficacy of information literacy skills. This action research aimed to examine information literacy skills and self-efficacy of these skills in undergraduate students. Furthermore, this study explored students' application of information literacy and how students apply information literacy skills to their academic and social lives.

Information literacy skills are essential skills for college students to master for success academically and for professional and personal success (Campbell, 2008; Cooper, 2019). Due to the conventional structure of information literacy instruction, student motivation is lacking (Bell, 2007; Latham, Gross, & Julien, 2019). Mandatory one-shot instruction sessions initiated by the instructor, where students and librarians only meet once, are an excellent example of instructional practices that do not enhance motivation and can be detrimental to students. This is problematic due to the vast increase of information that students have access to, "information discernment has become an essential skill in everyday life, as people are confronted by an unmanageable volume of contradictory 'facts' and opinions" (Cooper, 2019, p. 445). Consequently, it is essential to encourage students to become proficient in these skills.

To develop a better understanding of students' information literacy knowledge and their self-efficacy of these skills, the following research questions were explored:

1. What is the level of undergraduate students' knowledge of information literacy at the University of South Carolina Columbia campus?
2. What are undergraduate students' self-efficacy beliefs about their information literacy skills?
3. How do undergraduate students use information literacy skills in their academic and social lives?

METHOD

This study utilized action research-based (Mertler, 2017) to answer this study's research questions. Further, this action research study followed a convergent mixed methods design. A mixed-methods design is beneficial to my research as it allowed me to combine quantitative and qualitative data to make inferences that enabled me to answer my research questions (Creswell, 2015). To answer the research questions, two methods of data collection were utilized.

Quantitative data were collected via a questionnaire sent to students from March 2020 through May 2020 ($n=72$). The questionnaire was composed of demographic questions, questions about internet use and library resources, self-efficacy questions from Kerbanoglu et al. (2006), and knowledge questions from Hollis et al. (2019). The qualitative data sources included two focus group interviews. A total of two focus group interviews were performed, a sophomore and a junior focus group, during the late spring and early summer of 2020.

The quantitative data were analyzed utilizing descriptive statistics. Descriptive statistics allowed me to transform the data collected via the questionnaire into more manageable chunks of numerical data for analysis (Mertler, 2017). Once the questionnaire closed, all of the data

were downloaded into a .csv file and then imported into JASP for analysis. The qualitative data were analyzed utilizing inductive analysis. Inductive analysis allowed the researcher to reduce the volume of data collected via the interviews.). For this research, I completed two cycles of coding to make sense of the data. During the first cycle of coding, I coded the transcripts using in vivo coding followed by descriptive coding (Saldaña, 2016). The second cycle of coding was pattern coding (Saldaña, 2016). Those two cycles of coding allowed me to see what recurring themes emerged across two focus group interviews. This process also allowed me to see what applies to the group at large versus what applies only to individual participants (Saldaña, 2016).

Information studies students' perceptions of e-Learning during the COVID-19 Pandemic Period: A Case study

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Abstract. The outbreak of the novel Coronavirus, COVID-19, has led to significant changes in social practices and how institutions function worldwide. The educational sector has not been isolated from these changes, as the Covid-19 pandemic has imposed extraordinary measures that have led to a temporary suspension of work in a large number of institutions, in addition to applying social distancing, quarantine, and other measures that led to halting the educational process in many countries.

The problem with educational institutions is that the way they function is based on the interaction between students and teachers, which contradicts social distancing principles and expose both teachers and students to the risk of infection. Social distancing is defined as "a measure taken by governments to prohibit large gatherings and urge individuals not to mix outside their families. Also, it included measures such as closing borders, prohibit gatherings in public places, schools, and universities, imposing what is known as quarantine, physical distancing, isolating individuals suffering from symptoms of the Coronavirus in addition to urging individuals to leave a distance of 2 M, at least to minimize contact with others (Regmi and Lwin, 2020). As a result, schools, universities and other educational institutions began to search for alternatives to traditional education, which was represented in the adoption of e-learning using electronic platforms designed for this purpose.

With the rapid and sudden shift towards e-learning, many benefits and challenges emerged, necessitating studies to evaluate the e-learning in various educational institutions in order to know if it did succeed to replace traditional learning or not.

The current study seeks to evaluate the Information Studies Department's experience in e-learning. The study adopts a quantitative approach by distributing a questionnaire among the students affiliated to the department to explore their perceptions of e-learning in the department.

The study objectives can be summarized in the following points:

- 1- Evaluate the department experience in shifting towards e-learning.
- 2- Measure the students' perception of e-learning in the department.
- 3- Learn about the pros and cons of e-learning in the department.

Key words: E-learning, COVID-19 Pandemic ,Corona Virus, Information Studies Department

Libraries and business continuity in times of disruption: a covid-19 response

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Abstract. For many years now, the focus of information organizations (i.e. Libraries, Archives, Museums, Documentation Centres etc) was on disaster planning and risk management. Especially, the concern was placed on collection prevention and collection preserving. Numerous books and articles have been written and numerous measures, methodologies and plans have been put in place by information organizations all around the world with the view to secure collections from disasters (i.e. flood, fire, earthquakes etc). Little or almost no attention was placed on ensuring business continuity. Specifically, the way the information organization would carry on operating and offering services to the relevant clientele was hardly part of the disaster planning. In the rare occasions that it was, it was only as the side-effect of the disaster prevention of the information organizations' precious collections. This paper aims to present the notion of business continuity in information organizations and its importance in securing a continuous of services and most importantly of internal business operations in times of disruptions. Mixed methods research (i.e. Literature review, Desk research and Content analysis) will be employed to report on the business continuity plans adopted by information organizations. Covid-19 showcase the importance for information organizations to assess their business processes, plan specific steps to take during the different phases of disruption and ensure business continuity of the organization.

Keywords: information organizations, business continuity, disruption, covid-19, services, processes

Libraries in TDM Wonderland: The example of Greece

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Abstract. In the realm of copyright, a new exception has recently been introduced. The exception for text and data mining (hereinafter TDM) under a dual-approach regime is *expressis verbis* provided in the Directive 2019/790/EU on copyright and related rights in the Digital Single Market, since the importance of TDM and its interplay with Artificial Intelligence are widely acknowledged in the data driven economy and in the era of "Industry 4.0". TDM is a scientific tool that processes large amount of information with a view to uncover new knowledge and discover new trends possible. Beneficiaries of the exception of TDM for the purpose of scientific research provided in Article 3 of the DSM Directive are, among others, the academic libraries. Academic libraries hold a key position, and their role is significant in order to support researchers to undertake TDM and thus libraries and librarians support innovation and research. At the same time, librarians can act as intermediaries between publishers and researchers.

This paper aims at shedding light to ambiguous concepts of the new exception of text and data mining for the purposes of scientific research with emphasis paid to the role of academic libraries. Further, this paper analyses the current situation of the interaction between academic libraries and the text and data mining technologies, what are the main concerns of the librarians and the risks that could jeopardise the application of the exception in Greece and in other EU Member States, taking into account the practical difficulties.

Keywords: Academic libraries, exceptions and limitations, scientific research, text and data mining

The Library as a Digital Scholarship Hub: Opportunities for Leveraging Learning Support

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Abstract. With libraries now expected to be online and clients assuming that academic information resources are available and accessible publicly on the Internet anytime, the digital environment provided opportunities for the libraries to mature in their learning support for their school communities. This had been made even more pronounced when the COVID-19 pandemic affected the world over, moving all services and programs to shift heavily to the digital environment. While advanced libraries have been prominently embedding Library 4.0 in their learning support systems, the pandemic pushed many, if not all, libraries to consider developmental directions involving the heavy use of digital technologies in scholarship. This study aimed at exploring the digital scholarship (DS) service opportunities in libraries by means of benchmarking on the DS services and practices of the top higher education institution libraries in Asia in 2020, which endeavors to serve as baseline in coming up with a proposed DS hub development plan for Philippine academic libraries. The descriptive survey design using website investigation to screen data was employed, drawing up an instrument to contextualize the DS services mined from these websites, then categorized based on the determined and desired DS services environment. A DS services scan of the libraries of top-ranking Asian universities with that of the Philippines' best were mapped to get a perspective of the status of the latter's DS services, providing insights in coming up with a DS program plan. Data revealed that while leading Asian university libraries have moved away from the traditional types of services, content and framework, its Philippine counterparts' services were deemed emerging. Subject expertise upskilling among librarians in the fields of data research management, data services and digital technologies, as well as an intensified librarian engagement in DS partnerships and projects in the academic community were seen as opportunities for a responsive DS service. The output of this study has potential use in guiding Philippine academic libraries in coming up with their own framework and roadmap towards instituting their own DS services hub, to leverage learning support in their respective communities.

Keywords: Digital scholarship, digital scholarship services, learning support, libraries, librarians

Library Leadership in a World of Perpetual Crises

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Abstract. American higher education, like many other higher education systems around the world, is confronting a severe crisis, the COVIDd19 pandemic. This pandemic has caused profound consequences. In the area of higher education, for example, the traditional methods of instruction have been replaced with the new ones. While students continue to receive their education, many other university-related services have been severely disrupted, causing enormous financial losses for many universities and colleges throughout the country. Interestingly though, many, not all, American higher education institutions are likely to survive this crisis.

A number of factors (e.g., government support, endowments, and continuous growth of international students) may contribute to their survival. However, one of the often-overlooked

factors is their leadership. Traditionally, American university presidents emerge from the traditional academic leadership pathway: department head, dean, provost, and ultimately, president. However, today's American university presidents come from various backgrounds, many of whom come from the private sector without possessing the required traditional academic credentials (e.g., doctoral degree or publications). In fact, according to a recent article in *Inside Higher Ed*, titled, "By One Measure 'Nontraditional' Presidents Less Rare," shows that "40.5 percent of university presidents had never held a tenured or tenure-track-eligible position in academe."

The increase in the number of "nontraditional" university presidents was the result of the demand by the public as well as the various governmental entities for better management of resources, especially at public higher education institutions. These "nontraditional" university presidents tend to come from the private sector who possess vast experiences in dealing with financial and other major problems as well as in running efficient and effective organizations. In this paper, the author will argue that it is time for university libraries around the world to experiment with this "nontraditional" higher education leadership model. Specifically, university libraries should hire library deans or directors who possess limited library credentials but extensive leadership experiences in other areas (e.g., business or industry). In so doing, the author will examine the strengths and weaknesses of this "nontraditional" leadership model. All in all, the author believes that this new model will provide university libraries with tested leaders who can help not only in managing their libraries efficiently and effectively but also in navigating in the incoming crises.

LIS education in resarch methods: An international perspective

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Abstract

Introduction

Library professionals need practical skills in designing and carrying out research projects as they are not only consumers of research, but also active researcher-practitioners engaged in assessment, user studies, research data management, and empirical research (Alemanne, & Mandel, 2018; Applegate, 2016; Berg & Banks, 2016; Luo, 2011; Matusiak & Bright, 2020). Research in the library and information science (LIS) field indicates inconsistent education in research methodology across LIS programs and a limited number of studies examining this issue in the international context. This presentation will describe the methodology and preliminary findings from the international study that examined educational models of teaching research methods in LIS professional preparation programs worldwide. The project was sponsored by the IFLA Library Theory and Research (LTR) Section.

Objectives

The goals of the study are to examine what approaches to teaching research methods are currently being applied in LIS programs worldwide and to compare international educational models for preparing library practitioners to conduct research and evaluation studies.

Methods

The study employed a mixed-methods approach to data collection and analysis. It gathered data from the LIS educators in multiple countries through a survey designed in three languages:

English, French, and Spanish. The multilingual research team with scholars from Canada, Mexico, Sri Lanka, and the United States conducted follow-up interviews collecting in-depth data about curricular models and practices in teaching methods.

Results

This presentation will summarize the data from the large-scale international survey and will report the preliminary results from the interviews. This study confirms the findings from the previous research about the different levels of professional preparation in the international context (IFLA BSLISE Working Group, 2018). In some countries, an undergraduate degree represents a minimum qualification to enter the profession, while in other countries a graduate degree is expected, especially for academic library positions. Almost all professional preparation programs reported in the survey require at least one research methods course. The educational model of professional preparation influences the number and types of courses in research methods. In countries, with both undergraduate and graduate LIS education, students tend to receive more extensive training in research methods with multiple courses and advanced coursework in the graduate program. Training in research methods may also be embedded in other courses such as information behavior or user experience. The courses prepare students to understand different types of research, evaluate research publications, and design a research project. The programs with more extensive and diverse coursework expect students to conduct empirical research studies.

Conclusion

This project contributes new comparative data on research methods education internationally. The presentation will inform LIS educators on the different models for preparing researcher-practitioners and professionals for global evidence-based librarianship. It underscores the importance of research methods courses for preparing professionals to conduct evaluations in the library and information science practice and research.

Keywords: International LIS education; research methods; LIS professional preparation; researcher-practitioners; educational models

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Makerspace or Managed Service? Twin operating models for 3D printing in Libraries

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Abstract. The University of Edinburgh Main Library makerspace - uCreate Studio – has been providing 3D printing equipment, advice, training, and support to the University of Edinburgh community since 2017. A non-prescriptive service, free at the point of use and open to all, the service has introduced thousands of staff and students to the benefits and practices of 3D printing and a wide range of related technologies. The service champions self-directed learning: following basic training in safe and effective use of equipment makers are encouraged to jump

in, experiment, make mistakes and build knowledge and experience in 3D printing theory and practice via a supported self-service model.

The COVID-19 pandemic introduced new restrictions to access and forced a pivot in our service to a bureau model. Though the change in approach was forced on the service, it has introduced new efficiencies; reduced machine down time; lowered material waste; and opened the service to new audiences. These improvements have come at the expense of practical skills development opportunities; significant increases in staff time per print; a reduction in the flexibility and versatility of printer configuration; a reduction in opportunities for both self-directed and peer-based learning; and a reduction in serendipitous discovery of opportunities to collaborate and skill share within and across our community.

This paper outlines the contrasting approaches; key benefits and challenges associated with each operating model; highlights the positive and negative implications of each. Presenting an argument for a combination of the two modes to allow for both service efficiency and opportunities for makers to build advanced digital and practical skills

Measuring societal impact of research in social sciences in Croatia

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Abstract. This paper presents the results of the second phase of our project of measuring the societal impact of scientific research in Croatia. We use a hybrid framework for the analysis of societal impact of research which is based on the principle of productive interaction. First, we coded the final reports of the expert panels in the evaluation procedures carried out by Agency for science and higher education of Croatia. The coding was done according to the principles of productive interactions. Following (Spaapen and van Drooge, 2011) we assessed a sample of societal interactions formally submitted by an institution under evaluation as representative for their practice. Let us recall that a productive interaction can be categorized according to the taxonomy of (Spaapen and van Drooge, 2011):

- Direct interaction
- Indirect interaction
- Financial interaction

In this paper we analyse the same cohort of institutions using a bibliometric model to measure the societal impact of research. We focus on the institutions in the field of social sciences. The analysis encompasses 18 faculties of public universities and 3 public scientific institutes in Croatia. We use data from the Croatian scientific bibliography database (CROSBI) to quantify the above-mentioned types of productive interaction. Croatian scientific bibliography (CROSBI) database lists a collection of all outputs by individual researchers. It is maintained and its accuracy is assured by the Centre for Scientific Information of the Rudjer Boskovic Institute. Furthermore, it is mandatory by bylaws of Croatian Science Foundation (CSF) for all researchers – participating in CSF funded projects – to maintain records of all of their research outputs accurate. These records are then used in internal CSF evaluation procedures.

In addition to listing publication data for papers published in the scientific journals, the CROSBI database lists research outputs like science popularization papers, expert reports, theses, lecture notes and such publications. In this way we can obtain quantitative information on the impact of scientific work on society using the framework of productive interaction. The target period was set to be 2013-2017 to coincide with the evaluation cycles used in the first phase of this research.

Key words: societal impact of research, Croatian system of higher education and science, productive interaction

Methodological Considerations of Written Heritage Interpretation

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Abstract. Cultural heritage can be viewed as a cultural process that reflects contemporary cultural and social values, and is subject to the process of management, legislative frameworks, financial resources, education, the process of preservation, and research. Cultural heritage research that is conducted on all phenomena of cultural heritage includes various methods used to achieve knowledge of heritage and its values, as well as its preservation and long-term accessibility. It is important to look at heritage from as many aspects as possible so that the information obtained from the research can be disseminated to users of heritage institutions and the public. Researching some of these aspects includes analysis of discourse i.e. text, research of users, and research of the object or material aspect of cultural heritage. These are predominantly qualitative research methods that can include interviews, surveys, text analysis, observation, case studies, ethnographic studies, and many others. All of these methods are used in a way which allows them to be adapted to specific research needs since there is no single approach to researching the phenomenon of cultural heritage. Research also has to include a cultural and social component because heritage is linked to people (heritage community and general public) precisely through social processes and experiences by which people add value and significance to heritage and thus collectively care for it to ensure its continuity, authenticity, and identity. Written heritage on various media is one of the most numerous types of cultural heritage stored and preserved in heritage institutions. It is necessary to preserve it in a way that ensures its availability, 'readability' and ability to be reused which, in turn, can be achieved by preserving its material and informational aspect. Written heritage is also specific because of the values which are inherent to it, especially the informational value. Its preservation has a cultural and social value for the heritage community. The aforementioned values can be used for organizing activities that raise public awareness and understanding of written heritage. The organization of such activities should be based on an impartial analysis, which should as a result have an objective description of the material and informational aspect of written heritage. Understanding all of the specific factors of written heritage and methodology used in the research of cultural heritage in general, it should be considered in which way it is possible to answer research questions which concern the goal of objective description of written heritage and planning interpretation activities. Therefore it is necessary to recognize the methodological limitations and possibilities concerning the specific field of written heritage interpretation and methods applied in the research of cultural heritage in general.

Keywords: written heritage, interpretation, methodology, preservation

Methods of involving scientists in sharing research data - on the example of universities implementing the Bridge of Data project

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Abstract: Research Data Management (RDM) is a topic that has been discussed and gaining importance for many years. The fundamental prerequisite for proper data management is the appropriate and effective use of public funds. Research funding institutions and organisations stress that funding for research grants is largely wasted. Data resulting from research work are not properly stored or shared. The results published in scientific journals are in this case impossible to verify, and the research that was completed with the project, impossible to reproduce, continue and use. Also, the fight against COVID-19 has shown how important it is

to share research results. Funding institutions, including the European Commission, place increasing emphasis on proper management of the research results they fund. Many guidelines and recommendations in this area have been published.

RDM is a crucial component of research integrity and reproducible research, and its value is increasingly emphasised by funding agencies, governments, and research institutions. However, discussions about data management and sharing are often limited to librarians, data professionals, and researchers who are already engaged in data stewardship and are enthusiasts of Open Science. To implement an effective RDM practice, we need a cultural and mental change. One of the essential issues is a practical engagement with researchers, who are the primary data producers and re-users, necessary for this shift.

The Gdańsk University of Technology, together with the University of Gdańsk and the Medical University of Gdańsk, has been implementing the project “Bridge of Data” since 2018. As part of the project, universities provide research data from various scientific disciplines in the data repository. This repository is created in accordance with international standards, and its functionality is a response to the needs of scientists.

The article discusses the main directions of activities aimed at involving scientists in the management of research data and encourages them to share research results in the form of data. The analysis is based on the literature devoted to this issue, in particular, the guidelines and studies prepared by RDA, LIBER and GO FAIR. The experience of three universities implementing the Bridge of Data project, under which a research data repository is being created with the direct participation of scientists representing various scientific disciplines, was also described.

Keywords: Open Research Data, Research Data Management, Open Science, Bridge of Data

Model of communication of digital cultural heritage in the education process

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Abstract. Starting from the fact that the digitalization of education and culture is one of the fundamental strategic goals of the European Commission and based on the analysis of key documents published by the European Commission in recent years, conclusion can be made that infrastructure, digital competences and the use of digital content in the education process are basic guidelines directing the education systems in all EU member states in the years to come. The paper starts from the assumption that digital cultural heritage represents an exceptional educational potential, followed by the elaboration of the thesis that – working in synergy – education and culture can contribute to the digitalization of the education process and enable understanding of the importance of digital cultural heritage for the development of national and wider European identity. Consequently, the basic research problem addressed within the paper relates to the examination of

the representation and use of digital cultural heritage content within the education process in the secondary school system in the Republic of Croatia. Furthermore, the ways in which teachers and students understand the importance of introducing this type of content in the curriculum of individual school classes will be explored, and key problems due to which these contents are absent from or insufficiently represented in the teaching process will be detected. Based on the analysis of available scientific literature, as well as on the analysis of accompanying directives, recommendations and strategies on the level of the European Union and at the level of the Republic of Croatia, quantitative and qualitative research will present a model of digital heritage communication in education.

Keywords: digital cultural heritage, secondary education, class curriculums, digitalization of education, national and European cultural identity

National Electronic Access to Scientific Literature for Support the Research and Education System in Romania- Anelis Plus 2020. „Lucian Blaga” Central University Library contributions and benefits

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Abstract: The present study will focus on a brief analysis of the Lucian Blaga Central University Library benefits through the project-National Electronic Access to Scientific Literature for Support the Research and Education System in Romania-Anelis Plus 2020, project co-financed by the European Regional Development Fund through the Competitiveness Operational Program 2014-2020.

The project mentioned above aims to provide the electronic access at scientific information resources for the academic and scientific community from Romania, and in the same time to develop scientific methods in order to support the research activity and disseminating the intellectual outputs of the Romanian scientific community. The main library is among the member institutions of the project, which offers access of the most prestigious scientific databases (SpringerLink, ProQuest, Emerald etc.), but also at electronic books based on IP, as well as using the mobile access account.

I will present an overall comparative analysis from the perspective of scientific resources contributions and use (database sessions, total searches, total requests, total full-text requests, abstract requests) which will highlight the information and documentation needs of the users, but also the new directions of development. In the current context due to the pandemic caused by Covid-19 and due to digital environment, who moved and forced the institution to reconsider the whole categories of products and services, the benefits of library's users are multiple and enormous, on which I will return in length.

News and Information Literacy: Accessing and measuring relevant competencies

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Abstract. There has been considerable divergence in how scholars define, implement, and measure news media literacy (Ashley, Maksl, & Craft 2013; Hobbs, 2011; Maksl et al., 2015; Potter, 2010). Some conceptualize media literacy as a skillset used to analyze, evaluate, and communicate messages (Hobbs & Frost 2003; Livingstone 2004). Generally, scholars agree that effective news and information literacy education should prepare people to become critical thinkers who can read, analyze, and deconstruct media messages and should empower individuals to understand, develop, and share informed viewpoints using tools available in a digital media environment (Ashley et al. 2013; Maksl et al. 2015; Mihailidis 2014).

Technological evolutions have reshaped the role of news media in democratic societies. The need of media, news and information literacy has been at the focus of attention among scholars, librarians, educators, and news professionals and a policy priority issue for organisations UN,

EU, etc and governments all across the world. However, while the field of media literacy is growing in interest and participation, research including empirical studies appears to be lacking (Singer & Singer, 1998). There remains a need to rigorously develop, refine, and validate objective measures of media literacy. The purpose of this study is to begin this process by developing a pilot measure of media literacy and examine scale measures for news and information literacy based on previous proposed models (A. Maksl, S. Ashley, and S. Craft 2015, Potter 2004). The importance of media literacy is justified not only by the quantity of media exposure. The vital role of information in the development of democracy, cultural participation and active citizenship underlines also its importance.

Now that the value of media literacy, information literacy, other related literacies, and thereby, MIL, has been generally accepted by most policymakers, international organizations, NGOs, the education sector, donors and other stakeholders, the problems of measuring MIL are more firmly related to the cost and difficulty of measuring citizen competencies at all, much less across nations and regions with significantly different governance systems, media development, IT infrastructures, levels of GDP and education (<https://www.ifla.org/files/assets/information-literacy/publications/towards-media-and-Information-literacy-indicators.pdf>)

The audience today learns about news and current events from an increasingly diverse set of sources, which can include traditional and emerging news outlets online as well as social media websites (Mitchell & Page 2015; Shearer 2015). News and information literacy should promote knowledge of media structures and a skeptical attitude towards news content (Ashley, Poepsel, & Willis 2010; Maksl, Ashley, & Craft 2015; Mihailidis 2009). Important is the role of libraries in a major information point.

Measuring news media literacy is important in order for it to thrive in a variety of educational and civic contexts while it is an important tool for libraries as well. The goals of this study are to validate existing news media literacy measures. Our research will build on existing measures of news and information literacy while we aim to propose a new approach that will allow us to better understand younger audience news and information consumption using the theoretical subcomponents of authors & audiences, messages & meaning, and representation & realities. The model will serve as a tool in order to analyse needs of library, media etc users and ways to address them. It is an important effort since and despite the emphasis given on the issue of media literacy there is a relative absence of tools to access it. A news and information literacy model will contribute in addressing these needs and most importantly in developing relevant policies and goals.

Keywords: Information Literacy, Media Literacy, News Literacy, Libraries, Scale Measures, Models

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Nigerian archives and libraries' readiness for the fourth industrial revolution (4ir): opportunities and challenges

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Abstract. Background/Purpose: It is no longer news that the fourth industrial revolution (4IR) is here. There are indications from here and there that confirm this reality. No doubt, many organisations such as social, economic, business, political, educational, and information organisations including libraries and archives have keyed into the development and advancement brought by the 4IR. Extant literature has revealed organisations mostly in the developed countries and some in the developing countries are currently enjoying the opportunities of the advancements of the 4IR. The literature also revealed that a greater percentage of developing countries particularly those in the Sub-Saharan Africa of which Nigeria is inclusive are yet to find their fit in the 4IR. On this note, there are pertinent questions to ask such as why are countries such as Nigeria not yet embracing 4IR, are Nigerian information organisations including archives and libraries ready for the 4IR, what is the level of readiness of the Nigerian archives and Libraries, what 4IR facilities are currently in place in the Nigerian archives and libraries that indicate their readiness for advancement in the 4IR, what benefits and opportunities are available for the Nigerian archives and libraries in the 4IR, and what challenges are eminent for the Nigerian archives and libraries in their readiness and participation in the 4IR? This study will endeavour to provide answer to these questions.

Methodology: The study will focus on South West, Nigeria. Purposive sampling of all archives in the South-west Nigeria will be embarked upon. Similarly, five academic libraries, five public and five research libraries will also be purposively selected in the same South-west Nigeria. All the archivists and the director in each of the archives and all professional librarians in each of the selected libraries and their director will be involved in the study. Both questionnaire and interview will be used to gather data from the respondents. Recommendations will be made based on the findings of the study.

Findings: It is expected that the findings of the study will reveal the reason(s) why Nigeria is yet to embrace 4IR, reveal whether Nigerian information organisations including archives and libraries are ready for the 4IR, the level of readiness of the Nigerian archives and Libraries, the 4IR facilities/technologies currently available in the Nigerian archives and libraries that indicate their readiness for the 4IR, the benefits and opportunities are available for the Nigerian archives and libraries in the 4IR, the challenges Nigerian archives and libraries are faced in their readiness for the 4IR.

Conclusion: The study will conclude based on the expected findings of the study.

Originality and value: The study is one of the pioneer researches that address the Nigerian libraries' readiness to integrate AI for library services and operation from the perspective of librarians. Such study is currently lacking in the Nigerian LIS research context.

Keywords: Archives, Archivists, Libraries, Librarians, Readiness for 4IR, 4IR opportunities, 4IR challenges.

One challenge consortium and library professionals are facing: promoting electronic scientific resources among end-users

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Abstract. Technological progress helps consortium* and libraries to answer users' needs but it is very important the specialists in library and information science (LIS) effectively communicate what new services are offered. How can they do this when it comes to e-resources? Considering the e-resources are becoming increasingly important to universities and libraries of all types and sizes, there is the challenge of promoting them.

The Romanian academic and research community has had continuous access to an important number of scientific e-resources, through projects like *Assuring national electronic access to scientific literature for supporting and promoting the research and education system in Romania* (2013-2016) and "*Anelis Plus 2020*" (2017-2022), developed by *Anelis Plus* Association.

The paper presents the practical experience of Romanian *AnelisPlus* Association over the last 6 years in the field of promoting databases and platforms of scientific e-journals among the Romanian academic community.

The paper starts by presenting the problems that the Association and university libraries are facing: budget, the way of communicating the changes in the new informational environment, the inability of the info-documentary structures to meet all user requests, issues related to the career development of library specialists, the adaptation of info-documentary structures to changing technical requirements, understanding the research trends and the library and information specialists' role in the research cycle, demonstration and acceptance, by researchers, of the value of LIS specialists, managing the transition from traditional to digital collections etc.

The factors that impose an increasingly active promotion of e-resources are also highlighted. Starting from the methods indicated in the literature, the ones used in the projects carried out by the Association are underlined.

Because the Romanian consortium is also building a national repository of scientific literature containing archives of scientific journals and e-books from the most important publishers, the paper brings to attention some ways of promoting this repository. As licensed resources, there is no free access and therefore the knowledge of the content and the access mode are very important.

Conclusions

- Because the users of the association come in contact with information about e-resources in different ways, it is important to adopt a multiple marketing approach. Regardless of the method chosen, the message must be consistent in order to capture attention.
- The association and its members must allocate funds for marketing activities.
- There is a need to develop a marketing plan; for e-resources the usage statistics are a good means of measuring success.
- The specialists of the Association, as well as those of the involved libraries, need to acquire marketing skills.

**Anelis Plus* Association is the Romanian Consortium having the mission to fulfill its members' information and documentation (I&D) needs, to undertake research and development activities, to purchase electronic resources (ER) of scientific I&D documentation for education and research, to undertake promotion and study activities necessary for the implementation of the educational and research policies, to encourage the scientific research and education in national and international projects with the purpose to increase cooperation and coordination of research activities on national and/or regional level.

Keywords: Electronic scientific resources (e-resources), E-resources marketing, *Anelis Plus* Association, Library and information specialist, Library and information science, European fund projects

Open access repositories in Serbia

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Abstract. Created from the need to store and use deposited digital information, Open Access repositories provide access to digital content from anywhere at any time and provide fully open access to all deposited content. Open Access repositories in Serbia have been present since 2005 when the doiSerbia system was established, developed through the Repository of the University of Belgrade established in 2012, until today when institutional digital repositories are rapidly developing. This paper will present the growth and development of Open Access repositories in Serbia, the presentation of all Open Access repositories in Serbia registered on the Registry of Open Access Repositories (ROAR) portal, as well as the most famous software used for their maintenance (DSpace, EPrints, Fedora). We will statistically process the indicators that indicate the number and type of documents deposited in the displayed repositories as well as the representation of scientific fields covered by existing repositories. The aim of the paper is to show the importance of Open Access repositories for increasing the visibility and citation of scientific results deposited in them.

Keywords: Open Access, Repositories, Serbia, DoiSerbia, Repository of the University of Belgrade, ROAR.

Opening the Conversation: Expanding Definitions of Data Literacy and Library Infrastructure for Qualitative Research

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Abstract. Qualitative research, particularly scholarship that draws upon interpretivist and critical traditions, offers us insights into experiences in ways that can never be captured through surveys or statistical analyses. Such insights are especially important during times of crisis and social upheaval. In the present moment, for example, researchers are engaged in qualitative projects to document experiences of COVID-19 and to inform public health policy decision-making. Likewise, efforts to address police violence against Black communities have been explored in oral histories and archival collections. Qualitative methods are powerful tools for exploring questions of social identity, marginalization, and diverse lived experiences. The types of data that come from qualitative scholarship, however, are varied and often more difficult to describe and share than the data from primarily quantitative work. Data literacy work in libraries is often centered around numerical and statistical data, which serves to position qualitative research work as less rigorous than other types of scholarship.

In this paper presentation, we will make the case for an understanding of data literacy that explicitly includes qualitative research. The presentation will discuss the findings of our own qualitative study of academic librarians who work with qualitative researchers. Our study explores how these librarians conceptualize data literacy, and how they work to build a more methodologically inclusive data literacy infrastructure in their libraries and campuses. Based

on our findings, we will offer a definition of data literacy that addresses the needs of qualitative researchers, and that considers issues around ethically collecting, analyzing, and sharing the unstructured but rich data that is produced through qualitative methods.

The presentation will invite attendees to reflect on the language used by library organizations and literature to discuss data literacy, and to consider how this language shapes and limits our understanding of what it means to use and produce data. We will ask them to consider the specific ways in which the practice of data literacy can be more intentionally inclusive of the epistemological, ethical, and technical concerns inherent to qualitative analysis. Finally, we will propose several approaches for integrating qualitative data into new or existing data literacy programs.

Keywords: Data literacy, qualitative research, academic libraries

OZwRCIN: towards CoreTrustSeal certification

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Abstract. CTS is an international community whose mission is to promote data repositories. The organization supports the promotion and development of repositories that meet CoreTrustSeal's high standards. These standards include a viable open data policy, maintenance and development of the repository in the long term but also ways of communication between researchers and users, usefulness and reliability of data stored in archives and repositories. Obtaining the certificate, the repository emphasizes the high quality and usefulness of its data. Repositories must fulfil the condition of being trustworthy. The term "trustworthy" reflects organization infrastructure, digital object management and technical infrastructure of the repository. If all conditions are met, the repository can be submitted through the Application Management Tool.

The terms are expressed in the document CoreTrustSeal self-assessment template that contains 16 conditions covering: Mission of the repository, Licenses, Continuity of Access, Confidentiality/Ethics, Organizational infrastructure, Expert Guidance, Data Integrity and Authenticity, Appraisal, Documented Storage Procedures, Preservation Plan, Workflow, Data Discovery and Identification, Data Reuse, Technical Infrastructure, Security.

RCIN, in the context of the conditions set, had to review:

1. Rights for data and create appropriate information about the licenses used in the repository and put it on its website, thus providing complete information on the usability of digital objects and metadata.
2. Key technical procedures such as data archiving, system access management but also assure that all RCIN partners understand the responsibility of the content implementation.
3. Strategy related to changing outdated file formats. The repository has been set up on the dLibra system, which has already had a chance to deal with the outdated digital object file format such as DJVU. The system has mechanisms to open such files in other formats.
4. Ways to communicate with the repository user. Whether a communication medium has been provided, such as contact form on the website.
5. Ensure that all partners who are part of the RCIN are recognized in their domain fields as scientific associates.

Up to now, when we have our first version of CTS application form, we feel that this experience gave us great opportunity to analyse and understand in details our current data preservation actions and verify to which level they are aligned with proper data preservation approach. It also encouraged us to summarise and write down and better organise our documentation related to RCIN.

Keywords: CoreTrustSeal, Data Repositories, Digital Repository of Scientific Institutes, RCIN

Perspective of Librarians on Awareness and Readiness of Academic Libraries to Integrate Artificial Intelligence for Library Operations and Services in Nigeria

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Abstract.

Background/Purpose: The advancement in technology has ushered in an unprecedented transformation in the way we create, process, disseminate, seek, and use information. There are technologies responsible for this latest development. They are the latest advanced technologies that are building digital revolution that commenced in the second half of the 20th Century prominent among which is Artificial Intelligence (AI). It is noted that over the last seven years, the concept of AI has shown steady growth, particularly when combining AI, libraries, and librarians. This is an indication that AI is impacting the information landscape. However, there seems to be no empirical evidence to indicate awareness and readiness to integrate AI in Nigerian libraries. This study therefore will examine from the perspective of librarians in Nigerian universities on Awareness and Readiness of Academic Libraries to Integrate Artificial Intelligence for Library Operations and Services in Nigeria.

Methodology: The study will adopt a survey design while the target population is the librarians in university libraries in Nigeria. Six universities, one each from each of the six geo-political zones in Nigeria will be purposively selected. From each of the six universities, FIVE librarians including system librarians and librarians in charge of ICT in the libraries will be selected as sample for the study. An open-ended survey that will be posted to the respondents through the mail will be used for data collection. This is to avoid face to face contact to abide with coronavirus rule of social distancing. Collected data will be thematically analysed and presented.

Results: It is expected the findings will revealed the level of awareness of librarians on awareness of AI, and the readiness of their libraries to integrate AI for library operations and services. It is also expected that the study will reveal the AI equipment already installed in each of the libraries. Further, the study will unravel challenges or otherwise in integrating AI in Nigeria university libraries.

Recommendations: The study will recommends among others the need for universities who are libraries parents institutions to make funds available for the purchase of AI equipment for installation in libraries. Similarly, it will encourage librarians to develop AI skills that will enable the smooth operation of the technology for carrying out library activities and services.

Conclusion: Upon the findings of the study, appropriate and relevant conclusions will be made.

Originality and value: The study is one of the pioneer researches that address the Nigerian libraries' readiness to integrate AI for library services and operation from the perspective of librarians. Such study is currently lacking in the Nigerian LIS research context.

Keywords: Advanced technologies, Artificial Intelligence, Awareness, Readiness, Librarians, Libraries, Library services, Nigeria,

The Possibilities of Advocating Libraries in Croatia by Means of Statistical Data

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National and University Library in Zagreb, Croatia

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Introduction. Library statistics are an important factor for effective advocacy of libraries targeting the decision-makers and for including libraries into the national plan for implementation of the goals of the UN Agenda 2030 for Sustainable Development. Therefore National and University Library in Zagreb has established Croatian e-library statistics system.

Objectives. One of the effective ways to include libraries into the national plan for implementation of the goals of the UN Agenda 2030 is to advocate them by means of library statistics.

Methods. National and University Library in Zagreb is in charge of collecting library performance data statistics and developing the System of Unique Library Performance Electronic Statistical Data Collecting. The e-library statistics system is based on the international standard ISO 2789:2013 (International library statistics) and international standard ISO 11620:2014 (Library performance indicators). The Permanent Board for Maintenance and Development of the System of Unique Library Performance Electronic Statistical Data Collecting, in cooperation with the Central County Public and School Libraries Offices and Central University Libraries Offices, is in charge of supplementing and developing the system at the National and University Library in Zagreb.

Results. By developing croatian e-library statistics system, the National and University Library in Zagreb has enabled quality advocacy of the role played by libraries in the Republic of Croatia. The e-library statistics system is available on the Portal of central county library activities and central university library activities in the Republic of Croatia (<http://maticna.nsk.hr/statistika/>). Data in the System of Unique Library Performance Electronic Statistical Data Collecting are the basis for analysing the libraries activities in the Republic of Croatia and for submitting reports to the ministries in charge. They are accessible to the entire library community, financers, and the general public (<http://hk.nsk.hr>). The beneficiaries of the program are all types of libraries in the Republic of Croatia, ministries in charge, universities and institutions in which special libraries operate, as well as counties, founding cities, Croatian Library Association, the Croatian Bureau of Statistics including IFLA Library Map of the World.

Conclusion. Due to the reliability, precision and uniformity of statistical data entry into the e-library statistics system and education for all types of libraries with System updates on an annual basis, the System of Unique Library Performance Electronic Statistical Data Collecting is the basis for quality advocacy of the libraries' role in the Republic of Croatia.

Keywords: advocacy, cooperation between libraries, Croatian e-library statistics system, international library statistics, National and University Library in Zagreb

The promotion of cultural heritage: do we need more than a library website?

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Abstract. The poster summarizes information on the research of the role of a national library as a heritage institution that is responsible for presenting national cultural heritage kept in its holdings in the time of well-developed web and ICT technologies. The examples of the

management practice of the National and University Library in Zagreb in the digital environment show that national libraries can contribute to the promotion of national cultural heritage. The aim of the research is to monitor and analyse online activities of the National and University Library in Zagreb. The monitored parameters include its presence and activity over time, from the static to active online services. Using the internal and external webometrics tools such as Google Analytics, Facebook Insights, as well as other tools to measure the activities on social networks, an assessment was made of the online services provided by the National and University Library in Zagreb that can contribute to the promotion and impact of national cultural heritage in different ways. The focus of attention was primarily on following the posts concerning the materials from the holdings of the National Library, including different types of resources such as written, art, music, cartographic, and other types of materials. In addition, posts about the heritage digitisation projects, Croatian, European or global, and posts about virtual exhibitions, etc. were monitored. Special attention was paid to the activities of the National and University Library in Zagreb in the digital environment and the contribution of the social media services, primarily the social networks, in communicating the information about its mission, services, and particularly the materials and contents that comprise national cultural heritage. By comparing the static and dynamic online services, including the services for promoting national cultural heritage, which the National and University Library in Zagreb provided over time, conclusions have been drawn about the possibilities of having a greater impact of cultural heritage in the digital environment. The contribution of this work mainly implies being active and expanding on the social networking sites, in combination with the management of cultural heritage resources on the websites of national libraries. Thus, a meticulous selection of the contents, including the contents comprising cultural heritage, and their communication and dissemination, will contribute not only to the visibility of the library but also to the quality of its online activities. Another contribution of this work is that the use of as many as possible different social networking services, and being open to providing more advanced online services in general, such as the Web 2.0 services, is a guarantee of visibility and quality of activities of a national library in the digital environment, at the same time having an impact on the standing of the national library's website in the global ranking of websites.

Keywords. national library, National and University Library in Zagreb, cultural heritage, cultural heritage institution, national library website, Social Media, Web 2.0, social networks, website traffic rank, communication of cultural heritage.

Public Libraries and Longevity

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Abstract. Public libraries can and do play a significant role in the lives of older adults. They are key organisations in supporting older adults to live active, productive and longer lives. Literature about the impact of public libraries extends back decades (see for example, Markless & Streatfield, 2001), but a specific focus on older people, although attracting more attention in the last few years, is still relatively scant. This presentation will draw on existing literature within and outside the LIS field to provide an overview of potential public library impacts relevant to older adults. It will then invite discussion about how those impacts might be measured. While the Australian public library environment will form the primary setting, the presentation and discussion have the potential for much wider application.

A recent study (Dalmer et al., 2020) conceptualised public libraries as a 'third place', using Oldenburg's definition and characteristics. Several of these characteristics closely correspond with the nature of public libraries including their inclusiveness, accessibility, and neutrality as a community place. Towards the end of their paper, Dalmer et al. rethink the 'third place' framework and move to the notion of libraries as social infrastructure. This shift enables a

broader understanding of how public libraries contribute to the lives of older adults and encapsulates additional characteristics of public libraries, such as their physical location (often alongside other community spaces) and their established connections with local services.

By thinking about public libraries as social infrastructure their contribution to social and economic participation, well-being and ongoing learning may be appreciated in more detail. It encourages us to identify the services and supporting structures that serve as components in understanding the impact of public libraries for older adults, as well as the tangible and intangible benefits that may emerge. Social inclusion, connectedness and well-being for older adults are admirable aims, but how are these manifested and measured? And what is needed to achieve these outcomes?

The global pandemic has generated new challenges that impact on the social and economic wellbeing of communities. For public libraries it has affected the ability to provide community space and reaches into areas, such as digital inclusion, for older adults. These issues will also be considered in the presentation.

Keywords: Public libraries; Older adults; Longevity; Impact

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Quality of service and user satisfaction indicators in a university library: Survey conducted as a result of COVID-19 pandemic

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Abstract. 2020 has been characterized by the health contingency brought about by the COVID-19 pandemic, signaling a turning point in the history of humanity. Every human activity has been affected to a greater or lesser extent requiring a temporal suspension or definitive cancellation, or at least the adaptation to a new normalcy. In the case of education, it was necessary to entirely migrate to distance, online and hybrid modalities. Regarding libraries, their services have been limited to digital settings and to the use of electronic resources, be them open access, by subscription or part of their own private collections. Every two years, the Francisco Xavier Clavigero Library of the Universidad Iberoamericana in Mexico City carries out evaluations in order to measure the quality of services and user satisfaction. In 2020, the survey previously used for this purpose in 2017 and 2019 was adapted to reflect the current situation. The instrument was sent via e-mail to the entire community of the university and was answered by 1708 members. The results clearly show that in a time when spaces and print sources are not accessible, library staff continues to be one of the main strengths of the library, whereas there are significant problems in the access to electronic resources, there is an urgent need to work in users' information skills and subscription collections need to be revised.

Keywords: University libraries, User satisfaction, Quality of service, COVID-19

Reference practice in master's theses across five disciplines

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Abstract: In the fall of 2018 a group of research librarians at the University Library of Southern Denmark (SDUB) started a project examining the reference practice of master's students in five disciplines across the university. The project was inspired by our experiences when helping and teaching students in finding literature and by a similar project at the Copenhagen University Library, (Fajkovic, M. & Stensager, A. O. (2018)), and was upscaled to five disciplines (Economics, History, Biology, Molecular Biology and Software Engineering) with a sample of twenty theses from 2000 and twenty from 2015 in each discipline, i.e. a total of 200 theses. Data was processed and coded to identify parameters such as type of publication and year of publication. Publication language was added to each record.

This paper will present main findings of the project and discuss some of the more interesting results, such as the difference in number of publications, and the use of non-English-language publications. Another interesting parameter is the age of the publications, which varies widely among the different disciplines. We also find a difference in the combinations of type and language from discipline to discipline: History shows a higher usage rate of publications in Danish and other non-English languages than for instance Molecular Biology, which turns out to use publications almost exclusively in English (scholarly journal articles). Also, results show a great diversity in the students' ways of referencing – some excel and others do not. This points to challenges in students' general academic skills – particularly information retrieval skills of some students seem to need improvement. For these reasons, we plan to cooperate with teachers and supervisors to advance student skills in information retrieval and referencing.

Keywords: reference practice, master's students

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A Research metric analysis of the Aga Khan University Medical College, Karachi on Scopus database 2010-2019

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Abstract. This paper analysis the research output and research performance of the faculty, staff and researchers affiliated to the Aga Khan University (AKU) Medical College, Pakistan from 1st January 2010 to 31st December 2019 on Scopus databases. The paper maps AKU research by analyzing publications by authors with Aga Khan University institutional affiliation that are indexed in Scopus, a citation database of the peer-reviewed literature. The researchers extract the data from Scopus database and analysis performance of AKU researchers. This paper is unique as it provides a holistic view of the Aga Khan University Medical College research by using scientometrics methods to demonstrate trends in high-impact publications along with citation analyses of articles, h-index, journal rank, and impact factor on Scopus database journals.

Keywords. Citation analysis, Research publication, Citation management, Medical literature, Citation count, Research output, Research evaluation, impact factor

Seeking disnormative information

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Abstract. Disnormative information can be defined as the kind of information, which is against the society's values, norms and sometimes even against the legislation (Haasio 2015; Haasio 2019). Burnett and Lloyd (2020) speak about Dark Knowledge, which is many ways closely related to the concept of disnormative information. The information related to drug usage, making suicide and other activities, which are considered harmful and illegal, are good examples of disnormative information (see Haasio, Harviainen & Savolainen 2020; Haasio & Salminen-Tuomaala 2020).

Dark Net, which is also called as a Tor-network, has become an important channel to share disnormative information (Haasio, Harviainen & Savolainen 2020) and they can be understood as spaces where illegal activities take place (see e.g. Grimani, Gavine & Moncur 2020) especially due to the anonymity of the Tor-network (Gehl 2018). On the other hand, disnormative information can be found also from open network, books, magazines etc. even though dark web has become an important channel to spread it.

This article analyses the conceptual differences between disnormative information and Dark Knowledge. While these concepts have been used very little in previous studies, this kind of analysis is important to get a better understanding of this type of information. Also, examples of those studies where the concepts have been used, are given (Ruokolainen 2018; Haasio, Harviainen & Savolainen 2020; Haasio & Salminen-Tuomaala 2020; Ruokolainen & Widén 2020).

One of the aims of this article is not only to clarify these concepts and illustrate the nature of disnormative information and Dark Knowledge, but also to consider its significance from the perspective of the information seeker. The issue is approached through the disnormative information provided by both the dark network and the open network and the information needs related to the disnormative information presented there.

The data used in the analysis is collected from Finnish Tor-network site Sipulitori and open network site PsyVault dedicated to psychoactive drugs. Also discussions about suicide in Finnish Ylilauta.org-service's discussion forum Hikikomero are used as a material.

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Statistical Surveys in Libraries in the Czech Republic and Their Interpretation Regarding the Quality of Services

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Abstract. Statistical reports represent a significant source of information in Czech public libraries. The authors describe the method of processing the statistical data gathered in Czech libraries; international activities in the field of library statistics are also mentioned. Attention is primarily given to statistical surveys, the processing of statistical data, and the subsequent utilisation of such data in medical libraries that, pursuant to the Library Act, are part of the Czech Republic's public information services.

Charles University in Prague offers the possibility of studying librarianship on bachelor, master and doctoral level on its Institute of Information Studies and Librarianship, part of the Faculty of Arts. The courses focused on quantitative and qualitative research methods have been gradually introduced in the curricula of all study programs in the past years.

The authors further consider the problems involved in the collection and interpretation of data in libraries, its utilisation, and the need for libraries to develop their own statistical research methods. In conclusion, a current example of best practice in utilising statistics by the National Medical Library (NML) is described. Data monitored on an ongoing basis was used to compare the volume of services provided during the coronavirus pandemic.

A broader approach to statistics and the subsequent utilisation of the data gathered provide a basis for comparing and measuring library quality and performance.

Key words: library statistics; annual statistical reports; performance measurement and metrics; medical libraries; Czech Republic; quality of library services

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Staying Ahead of the Curve: Mitigating Disruptions Through Business Continuity Planning in the Academic Library Setting

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Abstract. Organizations of all sizes and forms have been immensely challenged by the covid-19 global crisis and libraries are not exempted. The pandemic is just one of the many faces of disruptions that could either make or break an entity. To help mitigate the potentially destructive impacts and risks associated with various disruptive incidents, a sound business continuity plan (BCP) must be prepared ahead. This research aims to come up with a proposed BCP for the De La Salle University Libraries in response to major disruptions such as natural calamity, pandemic, man-made threats, and the like. This paper utilized a descriptive research design in the form of a quantitative method. The researchers devised a modified survey questionnaire composed of open and closed-ended questions to explore the organization's business impact analysis. This study will be beneficial to the library department and its mother institution in

order to continue in delivering its core services albeit the uncertainties and threat scenario occurrences. Additionally, this paper will also serve as a guide for library managers who are planning to devise a BCP for their respective libraries.

Keywords: Business continuity planning, crisis management, response planning, academic librarianship

Teaching and Learning 3D Printing in the University

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Abstract: 3D printers are a fascinating tool for engineering teaching and education, related to a large variety of subjects. More and more universities are integrating not just the topic of Additive Manufacturing but 3D printers to create great learning experiences. The main scope of the paper is to analyse the state of teaching and learning 3D printing in the European universities, presenting the advantages, particularities, and the involved actors. There will be supported the ideas that through 3D printing, students can translate their ideas directly into reality, and spatial imagination. Usually, initial teaching and learnings activities begins with simple physical objects and later deals with abstract, virtual 3D models and complex assemblies. The “magic” of teaching and learning 3D printing is that it allows quick reversal, from the 3D CAD drawing to the physical object; the direct link of the two processes is stimulating creativity and enhance imagination. Finally, there will be discussed the case of teaching and learning 3D printing at Politehnica University of Timisoara (Romania) with the support offer by the “3D Printing Support Service for Innovative Citizens” INNO3D project (2019-1-IE203-000693INNO3D).

Key words: Additive Manufacturing, 3D printing, teaching, learning, library, INNO3D project

Towards the Multidimensional Measurement of Library Performance. User Experience Index

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Introduction

The User Experience Index (UXI) is a composite index aimed to measure the overall user experience of a service supplied by a library. The goal is to measure the user satisfaction by calculating the sum of the selected attributes weighted by (i) coefficients appointed by experts and (ii) results from user surveys. The reason for using a composite index is to capture the aggregate effect of multiple factors influencing the overall user experience.

Method

The attributes of the UXI were derived from the National User Surveys conducted in Finland over several years in the same format. Altogether seven attributes were included in the National User Survey. The weights of these attributes in relation to each other were defined in the library directors' workshop to form a point of view to the weighting of the attributes of the UXI.

The weights of the attributes and the results from the user survey were then scaled to build a composite index that takes into account both the weight values defined by the library professionals and the library users' experience of the service they received.

Results

As a result, a new type of index measuring the users' experience was reached. This composite index allows the libraries to follow a long-term development of the wholeness of several attributes.

Discussion

The profit of using a composite index is to simultaneously show the effect of several factors affecting the wholeness. The composite index should be applied preferably to evaluate a certain service or a certain library as a whole. It should not be applied to make ranking between different libraries.

Being the attributes of the composite index carefully selected, changes in the values of private attributes may reveal the components of user experience needing special attention.

Traditional children's stories for a common future (TRACE): cooperation between libraries, schools, NGOs and universities

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Introduction. A traditional children's story is a story based on the culture, traditional values and folk customs of a nation, country or region. One of the most common ways for children to become acquainted with popular works of world literature is through libraries and school programs. Librarians are constantly updating and upgrading their current practices in working with children and motivating them to enhance their reading and learning skills. This poster presentation will provide an insight into the Erasmus+ project Traditional Children's Stories for a Common Future – TRACE realised in cooperation with partners from Croatia, Spain, Greece and Latvia, led by the National and University Library in Zagreb.

Objective. The project is aimed at raising awareness among the children between the ages of six and twelve about the importance of Europe's cultural heritage through education and lifelong learning, supporting skills development, social inclusion and critical thinking.

Methods. A survey was conducted on the use of traditional children's stories in formal and non-formal education in the countries participating in the project. Selected stories are used in workshops organised for teachers and librarians to help them become familiar with creative and innovative methods of encouraging children of this age group to read.

Results. In the project a Manual for teachers and librarians was prepared containing all the stories and educational materials created during the project. Publications produced within the project are translated into languages of the partner countries, as well as into English, placed on the e-platform so they can be available to users in open access. The e-platform allows parallel display of the stories, and some materials will be adjusted for impaired persons.

Conclusion. Through the exchange of experience about this topic with experts from different countries and different fields, librarians and teachers gain more information and tools to work with and are constantly developing and assisting in adopting collaborative and innovative practices. Teachers are given some innovative educational approaches that will help them to implement and improve the curriculum in their schools.

Keywords: cooperation, critical thinking, digitization, e-platform, european cultural heritage, innovative practices, learning skills

Transitioning to Virtual Interviews for Faculty Positions During COVID-19

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Introduction. The Texas A&M University Libraries uses a committee approach to hiring and filling faculty positions. Once applicants have been processed through the normal scoring rubric by the committee, the top candidates are identified and invited to an onsite interview. Due to COVID-19, this process was interrupted by travel restrictions, physical presence for the normal interview itinerary, and state, campus, and library restrictions. However, critical, open positions still needed to be filled for library support and service delivery

Objective. Develop a completely virtual interview process that accomplishes the traditional interview goals of candidates meeting with particular audiences, provides a means for effective communication, accounts for technological familiarity differences, and maintains a fair opportunity for all candidates.

Methods. An initial review was conducted of the typical candidate interview pre-COVID-19 to affirm the parts that were considered critical to the interview process. Once those critical pieces were identified, a variety of online tools were considered, and one selected that could provide the basic functionality necessary to best host those critical interview steps. Previous interview itineraries were then converted to incorporate the newly required contact information and steps which would allow candidates and different audiences to connect at appropriate times and with some technical defaults set for a more enhanced candidate interview session. Unforeseen lessons were learned by actually stepping through the process, and adjustments were made that maintained the efficiency and effectiveness of the interview procedure while also providing a more comfortable environment for those being interviewed. Committee notes were captured as actual candidates went through the process with caution of not making any changes during the interviews for a particular position but making some incremental changes between position interviews so that the process remained consistent for each candidate.

Results. On a comprehensive level, the committee had adequately captured all the components that typically lead to a successful interview. The conversion to a pure virtual format introduced new aspects, some of which were intuitive, but some that were only really captured after testing the system with a real test subject. Following through with that practice allowed the committee to better prepare for and have ready solutions for a variety of potential interruptions. Relaying to each candidate that the committee already had fail-safes for those possibilities added an extra layer of comfort for all candidates, and many provided feedback attesting to that fact. The newly converted process received overwhelming compliments from both the candidates and the library employees that also played a role throughout each interview.

Conclusion. Although initially a stressful change in procedure due to an unexpected global impact, the conversion of the libraries faculty position interview process to a virtual format not only accomplished continuation of filling needed positions, but also identified several opportunities that improved upon previously accepted patterns. The new methodologies provided interviewees with an informed and comfortable interview process, while also eliminating previous awkward situations, which raised the perception of the university library as a place of employment.

Keywords: Interview, virtual, experience, hiring

Transliteration of Latin names to Persian: Issues and solutions

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Abstract. One of the transliteration issues that has been considered by many researchers is the transliteration of specific names from one language to another.

Most of these problems are rooted in the phonetic differences of different languages. The names of persons involved in a work, including creators, translators, illustrators, etc., and whom that are the subject of a book are authorized in the Authorization Section of the Cataloging Department of the National Library and Archives of Iran (NLAI). The Reference Bank of Avanevesht of Latin Names is designed to transliterate the Latin personal names (non-Persian names) to Persian.

In this research, the Latin personal names of the articles in Journal of National Studies on Librarianship and Information Organization have been studied during 2011-2019. This journal is one of the most prestigious journals in the field of librarianship and information which is published by the NLAI. This study was conducted by content analysis method. In order to collect data, all Latin names citations of the journal articles and their Persian equivalents were matched with Reference Bank of Avanevesht of Latin Names. To answer the following questions: To what extent have researchers been able to transliterated the specific names in their articles correctly? what are the most common names? Which nationalities names were transliterated less correctly?

Key words: Transliteration, Latin names, National Library and Archives of Iran (NLAI), Reference Bank of Avanevesht of Latin Names, Journal of National Studies on Librarianship and Information Organization

An update on ClimateQUAL and how to keep up with library staff engagement

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Abstract. This presentation will provide an update on the ClimateQUAL survey protocol that was first introduced at the 3rd QQML in 2011. The protocol was updated to reflect updated demographic questions and it continues to provide a valuable baseline of staff morale and satisfaction especially during times of uncertainty as the ones created due to COVID-19. We will review how libraries have used the ClimateQUAL data and what are some other ways libraries keep track of how they stakeholders feel at a time when most work remotely via zoom and staying connected needs to happen in a purposeful and systematic way.

Keywords: ClimateQUAL, library staff satisfaction, diversity, equity, inclusion, staff morale

Users Experiences of Kurdish Cultural Institute Websites: A Multidisciplinary Evaluation

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Abstract. There are a dozen of Kurdish cultural institutions in the Kurdish Region of Iraq, other Kurdish areas and around the world, including Zheen Center for Documentation and Research, (<https://www.Zheen.org>), the Kurdish Studies Institute (<https://www.ksi.uok.ac.ir>), the Kurdish Heritage Institute (<https://www.khi.krd/en>), the Kurdish Institute of Paris (<http://www.institutkurde.org/en/>), and others. With thanks to ICT, most of the aforementioned institutions use websites to communicate and offer services in Kurdish and other languages.

Kurdish culture represents a plethora of beliefs, traditions, social norms, social habits, and values like other cultures in the Middle East, and some of these traditions and norms are presented via the previously mentioned websites, among others. Cultural institution website (CIW) success is dependent on how audience and community behavior and diversity is covered and handled. In spite of a well body of knowledge in human computer interaction especially, user experience (UX) and nearly a decade of cultural user experience (CUX) research, user experience or user opinion of Kurdish cultural institution websites (KCIW) has not yet been investigated by researchers and academics, and it is not clear whether these institutions provide content and services according to Kurdish culture diversity or not.

To fill in the gaps, in our investigations, we used an interview protocol to collect and analyze experiences and opinions of multidisciplinary experts' in cultural related fields such as language, sociology, anthropology, architecture, information science, and information technology. Data analysis showed the strength and weakness of KCIWs, as well as suggestions and demands of the users, especially cultural professionals in the aforementioned. Moreover, we compared finding against website CUX criteria in the literature. The findings shed light on promises and weakness of KCIW, and the possible local and international approaches that can be benefited from.

Keywords: user experience, cultural institution website, multidisciplinary evaluation, experts' opinion

Using a multi-location, longitudinal focus group method to conduct qualitative research into the role of public libraries

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Introduction / Purpose. The purpose of this paper is to present the experiences of using a longitudinal focus group method in a library and information science research project. This was developed and used in a recent doctoral study about the role that public libraries in England and Scotland play within the information society. The research questions explored in the work focused on individual advantage accrued through using public libraries; the impact of public libraries on individual and community citizenship; and the role of the 21st century public library.

Design and approach. At the outset of this study it was recognised that potential methods would need to enable dialogue with library users about their relationship with library service provision. Several qualitative methods were initially considered. These included ethnographic methods, naturalistic inquiry, grounded theory, Delphi methods, case studies, interviews and focus groups. Following evaluation, focus groups were deemed the most appropriate method for generating the required data.

Conducting the research. Up to ten library users at eight different public library locations across the United Kingdom took part in the study in three rounds over a period of three years between 2015 and 2018. At the focus group meetings the participants discussed and shared their experiences of using public libraries, and reflected upon how their library usage had affected them. Access to multiple participants allowed for elements of the research questions to be addressed in the course of an accessible and understandable conversations during which the participants spoke freely. The multi-location element allowed for a breadth of data to be generated, and the three rounds of focus groups added for depth.

Longitudinal studies are effective ways of observing and evidencing social development over time (Lewis & McNaughton Nicholls, 2013, 61-62) and this was a fundamental to the research. Here participants were able to reflect back on their most recent library usage from meeting to meeting, and to discuss this in a current and personal context.

Findings. The longitudinal focus group method had direct impact upon the quality of the data generated and the findings of the study. Whilst the paper will focus largely on the method, there will also be an opportunity to discuss some of the findings of the three phases of focus groups, which include: perceptions of the role of the library; the resilience of print; community ownership of libraries; enabling democracy and citizenship; social capital.

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Using Artificial Intelligence to Support Mentorship in Scholarly Communication

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Abstract. Academic research and publishing is the sin qua non in any higher-level academic institution because of the extensive benefits they provide. Staff in academia who engage in such activity experience both personal and professional growth. The most significant benefit however, comes from creating and disseminating solutions that extend to the organization and to society as a whole. Systematic and creative energies which academic research and publishing demand may seem onerous to many in academia. Consequently, there is a need to understand the dynamics involved and the acuity required to navigate the challenges of scholarly communication.

Studies have shown mentorship and coaching to be successful staff development processes that guide practitioners and academics through such challenges. Moreover, the use of information technologies to facilitate these processes have also proven to be an asset. The researchers propose an exploration of artificial intelligence technology such as Amazon's Alexa to support mentorship initiatives in scholarly communication. Alexa employs aspects of information technology well-suited for this kind of support. The accompanying presentation will identify and discuss such attributes as well as describe the research methodology to test this proposal.

Keywords: Artificial Intelligence; Mentorship; Amazon Alexa; Intelligent Personal Assistants; Smart Personal Assistants; Scholarly Communication..

Using the FDB conceptual tools to improve ChatBot functionality in academic libraries

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Abstract. The purpose of the current paper is to investigate how the FDB model and its architecture that supports conceptual search using the information derived from multilingual thesauri can be used as a tool to reinforce the ChatBot functionality when interacting with databases and users, in both database search and dialog management, and the significant advantages especially for academic libraries. Current research briefly presents ChatBot implementations in different sectors like medicine, education, libraries etc., identifies the specific sections of the ChatBot architecture where the FDB model can contribute and suggests an integrated ChatBot and FDB cooperation which enables better functionality, hosting ChatBots metadata within the FDB model and exporting conceptual information from the FDB in order to extend ChatBot knowledge base.

Keywords: ChatBot, Conversational Agent, FDB Model, Conceptual Search, Multilingual Thesaurus, Academic Libraries

Which Skills and Competencies Are Important For Latvian Librarians?

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Abstract. Today both the information environment and the way people obtain, process and use information are changing rapidly. In order to be able to offer information services that meet the needs of the society, librarians - information specialists - need new knowledge, skills and competencies.

The purpose of this study was to find out what are the current skills and competencies needed by contemporary library staff in Latvia.

This article is based on the results of the international project BIBLIO co-funded by the Erasmus + Program of the European Union in the study “Librarianship in Europe - mapping professional needs”, using one of the research methods - content analysis of job advertisements. Several Latvian job advertisement portals, the Library Portal, the website of the Latvian Librarians' Association, profiles of library social networking sites, and municipal websites were used to search for advertisements.

Job advertisements for the period from January 2017 to March 2021 were selected for the analysis, which mention positions related to library work. The analysis does not include advertisements looking for other professions to work in the library, such as public relations specialists, information technology specialists.

Job advertisements are analyzed by positions, distinguishing the duties to be performed and the competencies required for their performance. The DigComp model and Sheila Corral's "Model of Professional Competence" for librarians were used to group knowledge, skills and competences.

Transversal competences are most often mentioned in job advertisements, and general competences are much less common. Almost all job advertisements mention information and communication technologies for requirements or job responsibilities. Among the required competencies, they can be expressed both in general form as transversal competencies, such as skills to use information and communication technologies, and as specific professional competencies, such as work experience with a library information system.

Keywords: librarians, competencies, skills, requirements, job advertisement

A Feasibility Study of a Crowdsourcing Project in Promoting and Enriching the Local History Collection and User Engagement of the Quezon City Public Library

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Abstract. Crowdsourcing is a novel concept adapted by some public libraries in the world in getting ideas for their projects. The study sought to determine the feasibility of integrating crowdsourcing to a public library in the Philippines, the Quezon City Public Library, with the objective of strengthening the local history collection and increasing user engagement. Interview with the librarians and other personnel presented several ideas on what projects to focus on and how to effectively carry them out. An existing platform, besides social media accounts, was discovered to potentially be used for the envisioned project. The study showed a technical feasibility assessment of the project which included five factors: technology and techniques, technical capacity/skills, human and financial resources, resistance, and integration. Results showed that implementing a crowdsourcing project in Quezon City Public Library is technically feasible.

Keywords: Crowdsourcing, Local History Collection, User Engagement

A Tracer Study on the Perceived Impact of Leadership of the University of the Philippines School of Library and Information Studies (UP SLIS) Bachelor of Library and Information Science (BLIS) Students Student Council (SC) to Post-Graduation Professional Life

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Abstract. The role of LIS (Library and Information Science) professionals in the society is greatly enhanced by the technological developments occurring at an ever more rapid rate coupled with difficulties faced with discerning whether an individual is informed, misinformed or disinformed. This study would like to bring to light that the constant in this struggle are the people fighting, and in those ranks are leaders of the LIS profession. These leaders did not come about all of a sudden to dissent against struggles, rather they have been built up, honed by their experiences earlier in their lives. If leaders are the blade of dissent, then this study may be a step in improving the forge with which they are created.

As such, this study sought to answer the following research questions: "What has become of former UP SLIS student council members post-graduation?" and "How do former UP SLIS student council members perceive the impact of having undertaken leadership roles on the college-level on their development as professionals, in terms of student leadership competencies, and of characteristics and competencies of a modern LIS professional?". The study is a descriptive research utilizing survey questionnaire distributed personally and online (through google forms) to former student council member graduates of the UP School of Library and Information Studies for the period 2003-2018. Data collected were analyzed using statistics and graphs.

The study found that UP SLIS SC graduates are generally employed, if not taking up post-graduate studies and are practicing in the LIS field. Most respondents, who graduated a year after graduation, have received increased remunerations. Their general perception of experiences with the UP SLIS SC is positive. Specifically, they perceive student leadership

competencies and non-traditional competencies of LIS professionals as being well improved upon, though they feel the opposite with regards to traditional LIS competencies. Though not necessarily determinant of their outcomes, these now professionals' experiences with the UP SLIS SC have guided them to their respective states.

As a continually growing field, the study hopes that improvements on practices and general knowledge will be generated. It is also aspired that professionals in the field may share what they perceived to be pertinent skills and competencies that may be developed upon by their colleagues as well as educators of the LIS field in nurturing the next generations of professionals to come.

Keywords: Student leadership, Student Council, Leadership, Tracer study, Bachelor of Library and Information Science Students

POSTERS

Making the library the center of Special Collections and Digital Humanities

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Abstract. In the summer of 2020, the University Library of Southern Denmark (SDUB) decided to start a Center for Special Collections and Digital Humanities. The aim of the center is to combine the already well-established body of work done on the rare book and special collections (Holck et al. 2019, Holck 2018, Holck & Jensen 2019) with a new dedicated effort to support the staff and students of the University of Southern Denmark (SDU) in their work with digital methods and tools in the humanities. This also includes an enhanced work on digitizing the special collections at the library including new equipment for digitization of books and fragments as well as sound and pictures from the SDUB Jazz Collections (Jespersen et al. 2016, Jespersen 2018).

The motivation behind the foundation of the center is that SDUB is the knot that ties together all the different areas of the university. Due to SDUB's outreach, affiliations and knowledge of what is going on in different disciplines and fields of the university, we often find ourselves in the position of a matchmaker connecting researchers with overlapping interests, as our core group (consisting of research librarians from both the humanities and engineering as well as the natural sciences) covers a lot of the main interest fields of the center.

The poster will show the organization and the different focus areas of the center, including our collaborators across the university (and outside), and consider some of the strategic thoughts behind the center. We will also present some of the ongoing projects in the center: Research projects concerning Special Collections and within the Digital Humanities in collaboration with the Pontoppidan Centre at the SDU; and digitization projects such as the Jazz Collections, hereby illustrating the connections between the library, the collections and the university.

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Medieval Chants & Open-Source Tools: A Pilot Case of Text Mining and Analysis

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Abstract. At present, data mining and visualization tools are gaining momentum at the research and university libraries across the world. Often, the tools are used as part of the libraries' research services to educate patrons and provide new perspectives for scholars within the field of Digital Humanities. Equally important, the tools are also put to work on the libraries' own collections. As a result, library staff may obtain a better understanding of the library's holdings – and researchers in academia and other library users may suddenly find the library materials primed and accessible for complex textual studies. With the data mining and visualization techniques, comes a new way of thinking: For example, old materials may be approached in previously unexplored ways. Concerning the latter, we would like to present a pilot case involving one of our medieval liturgical manuscript fragments. This fragment is part of the binding of a 16th century first edition (print) of the famous Danish astronomer Tycho Brahe's *Epistolarvm astronomicarvm libri*, Vranibvrgi 1596. The fragment which can be dated to c. 1250-1350 contains a small number of chants that were common in the liturgy of the Roman Catholic Church. That is why it has been possible in previous research at the University Library of Southern Denmark to identify the fragment's chants using the Cantus Index – Online Catalogue for Mass and Office Chants (hosted by the University of Waterloo). Subsequently, in this pilot study, we are analyzing the selection of chants from the Cantus Database via the Voyant Tools environment, a web-based open source text mining and analysis tool. The Voyant Tools environment makes it possible to conduct studies of word frequency on the Cantus data which may or may not be attributed to specific genres of chant. With this pilot study we would like to show that the text analysis and visualization of the chant material illustrated in collocation graphs, in theory, may contribute to our understanding of the complex behavioral routines that formed the religious practice in the Middle Ages, as seen in the persistent use of recognizable textual patterns – with some morphological, syntactic and phraseological structures having greater frequency than others. The question is whether a full quantitative analysis of the presence of singular words, associated words, and strings of words/ phrases can draw forth the Cantus corpus' key components. Potentially, data mining and visualization methods may build bridges across multiple scientific disciplines, combining data science and statistics with linguistics, philology, genre analysis, hymnology, cultural history, and much more. We believe that future data mining developments, in combination with tools developed to apply optical character recognition (OCR) on handwritten texts, will make it possible to ask even more complex research questions and gain new insights into otherwise well-known library collections.

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